

Modern Heating Systems

Hot Water
Steam
Warm Air



November 1917

Sears, Roebuck and Co., Chicago



This Straightforward Guarantee of Satisfaction Given With Each of Our Heating Plants

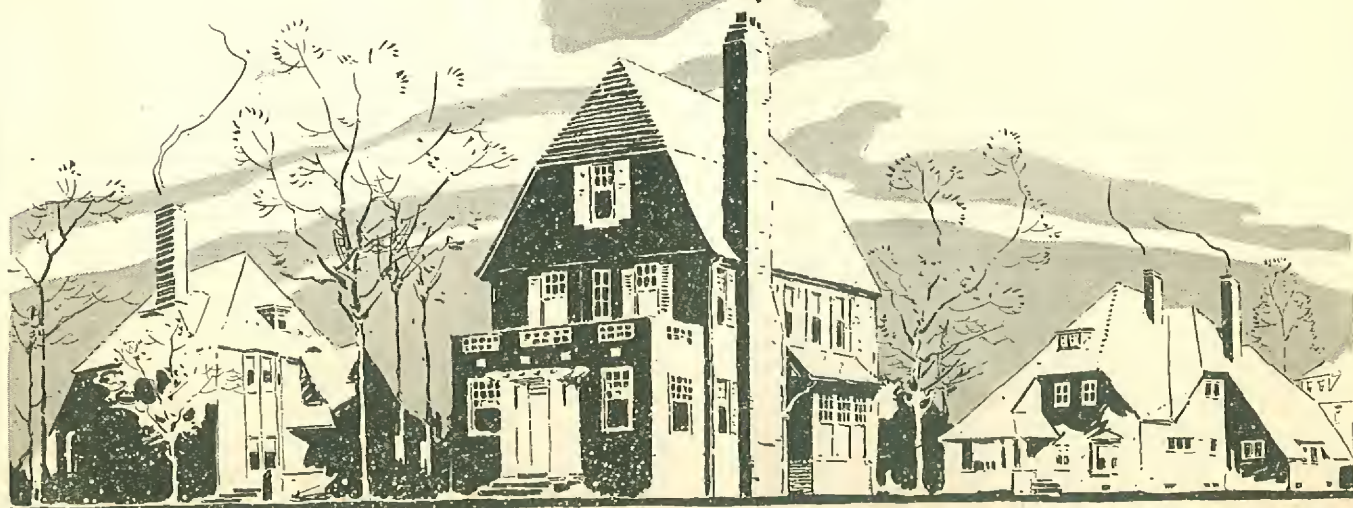
READ this guarantee. Notice how plain and straight it is. There you have it in black and white that if a heating plant bought from us fails in any way to prove entirely satisfactory to you within two years of the date on the guarantee (the date the plant is shipped to you), it may be returned to us, and we will send back both the purchase price and the transportation charges you paid. This is the printed guarantee you receive with your hot water, steam or warm air heating plant if bought from us.

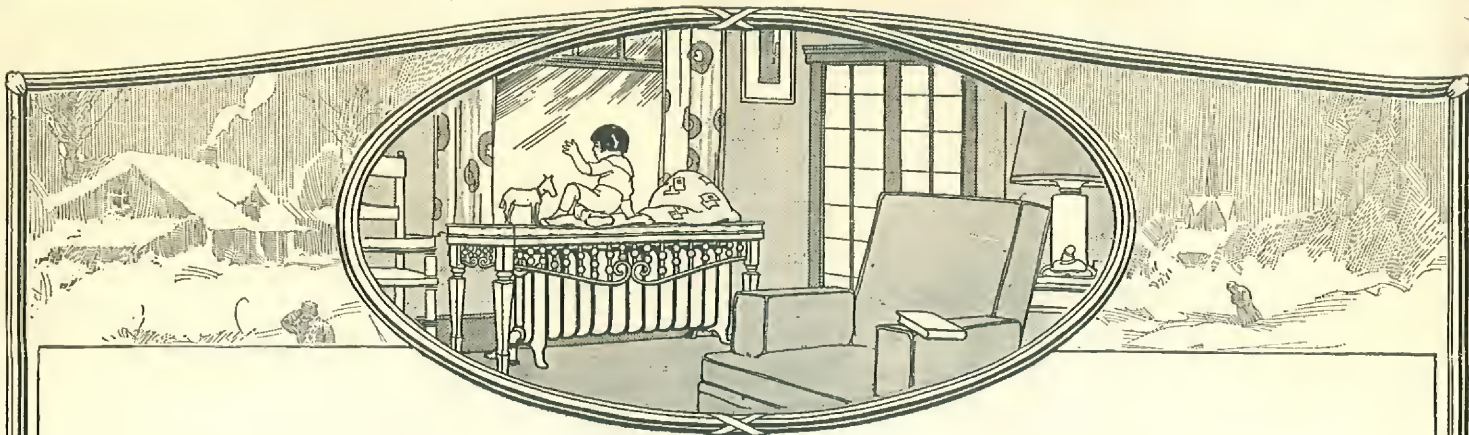
And this is by no means all. We have a general guarantee that applies to all our goods. Part of this general guarantee reads: "We guarantee that each and every article in our catalogs is exactly as described and illustrated. We guarantee that any article purchased from us will satisfy you perfectly; that it will give you the service you have a right to expect; that it represents full value for the price you pay." And you are the sole judge.

Sears, Roebuck and Co. - - Chicago, Illinois

MODERN HEATING SYSTEMS

Hot Water
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Warm Air





A Talk About Modern Heating Systems and the Merits of the Three Different Kinds

Showing Also How Easy It Is to Install Our Plants, How Thorough Our Guarantee, How Reasonable Our Prices

THE difference a Modern Heating System would make in your home throughout the long, hard Winter! With one of our Hercules Systems we guarantee a comfortable Summerlike temperature in every room in the house. This means not only pleasant warmth, but healthfulness as well, for doors between rooms can be left open and the air allowed to circulate freely. No fear of cold corners or chilling drafts.

The housewife in particular, and her husband, too, will appreciate the time and strength saved with only one furnace or boiler to tend, located in the basement, thus keeping the living rooms free from dust and ashes. Finally, there is the saving of fuel with just one fire not much larger than any one of the several fires it is now necessary to burn.

You can afford one of our Modern Heating Systems, for our prices are very reasonable, as will be seen in the following pages. Remember, besides, that you are not paying for just one season's service, but for a whole lifetime of comfort. Divide the cost by twenty or thirty years and see how little it really amounts to.

Easily Installed in Old or New Buildings in the City or on the Farm

Any of our Hercules Heating Systems can be installed in an old building that has been heated by stoves or open fireplaces almost as easily as in a new building. The pipes of a hot water or steam system, if left exposed, can be painted or bronzed to match the walls, making them hardly noticeable. With these systems it

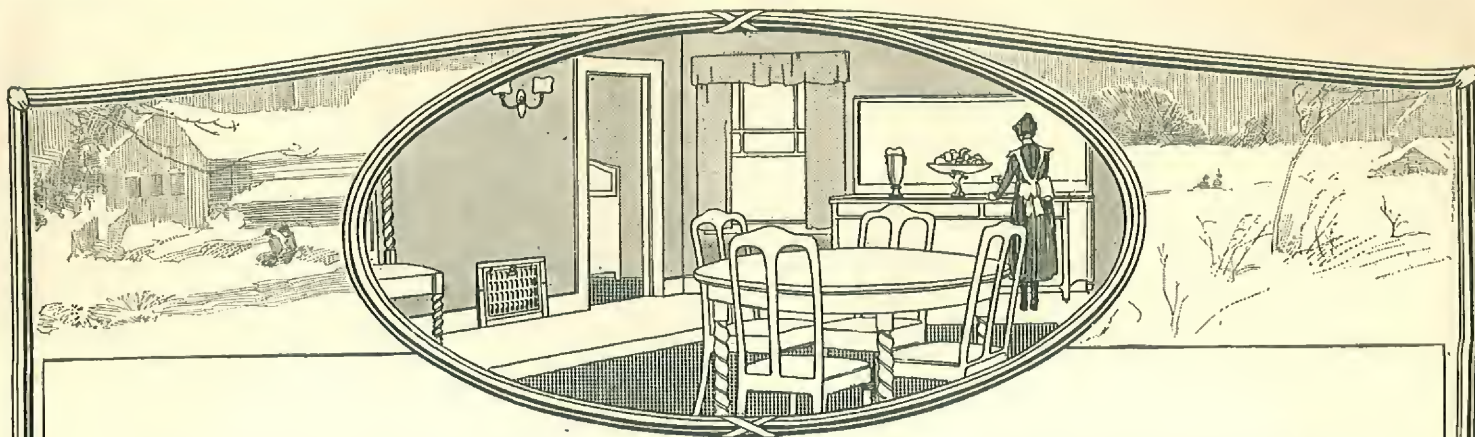
is not necessary to have city water pressure, as the plant can be filled with a pail and funnel. After it is in use one or two buckets of water is all that it will need during the entire Winter.

Our Systems Simple to Install and Operate. We Furnish Full Directions

There are more reasons than one why a heating system should be simple and easy to set up and operate. The main reason, of course, is that the simpler the construction, the less likely it is to get out of order. By making use of every modern improvement in construction we have brought our different systems to such perfection that not only do they operate without a hitch for years and years, but they are extremely easy to set up and install. The great majority of our thousands of customers have put in their own plants with no other help than the simple and plain directions we furnish with every plant. This has another important angle to it: While the cost of having the plant installed by a mechanic is not heavy, still it is an item, and you can save this additional expense if you are at all handy. We guarantee that if you buy your plant from us you will be able to put it in without difficulty. Many others have done it, as their letters tell. (See pages 28, 29 and 39.)

How We Prove Our Words—Our Guarantee

It is sometimes easy to say things, yet hard to prove what you say. We are willing to go to the extreme limit of proving, and you are to be the judge.



With every one of our heating systems we give a printed guarantee as illustrated opposite page 1 of this book. If one of our heating plants, when installed according to the plans we furnish, does not give the thorough satisfaction you expect and ought to have, we guarantee to take it back at our expense any time within two years, and we will then return the full price and the freight charges you paid. Surely this is proof of the high quality of our plants. The guarantee is based on the actual fact that we seldom hear a complaint.

How Low Prices Can Be Combined With High Quality

Ordinarily the materials that go to make up a heating plant have to pass through a number of hands before they reach you. Each middleman adds, and is entitled to, his profit. The price you are asked by a dealer is the original cost *plus* these various profits. Our method of selling direct from the factory, without the great expense of the usual sales force, and with just one reasonable profit added, explains the unusually low prices we quote you on material for which you are often asked a great deal more. The high price adds nothing to the quality of the material. Our plants cost just

as much to manufacture as other high grade plants, and it is the original cost that counts.

Let Us Estimate for You

We will gladly give you, free of charge, an estimate or bid on a complete Hercules Heating Plant of the kind you wish if you will merely fill out the estimate blank enclosed with this book. All we need is a few rough sketches of the different floors of your building, together with the measurements. Let us know what sort of heating you prefer, whether hot water, steam or air. If you have not already a preference, we explain on the following pages the differences and merits of the three principal systems. After reading these pages it will be easy for you to make your own selection.

The estimate we send you will be for a plant of the proper size, including all the material necessary for erecting it complete, a plant that will heat your building satisfactorily throughout, in all kinds of weather, with the least expense for fuel.

In asking for our estimate you do not put yourself under the slightest obligation to buy from us. We are glad to give you our figure. Let us tell you what it will be.

Three Principal Modern Heating Systems

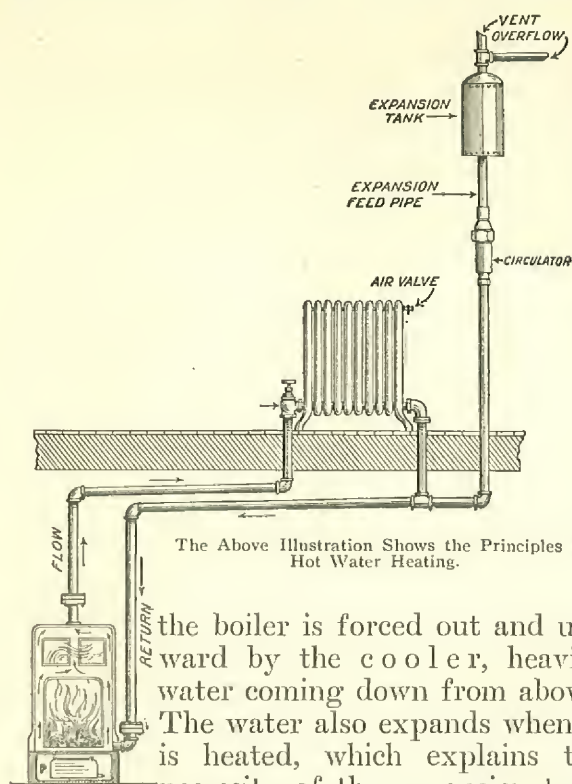
The Advantages of Hot Water and Steam Heating

HERCULES Hot Water and Steam Plants possess in common a number of very desirable features. Both make use of water as the carrier of heat. Water, of course, retains heat much better than air—does not lose it as readily when carried a considerable distance. Hot water or steam plants are, therefore, better than warm air furnaces for large houses and other buildings of considerable size. In both systems the heat is carried in small, hardly noticeable pipes, involving less

disturbance to put in an old building than the installation of a warm air system. From the very fact that water retains heat so well, it is unnecessary to pay as close attention to the boiler as with a warm air furnace, where the air is heated directly. And it takes less fuel to keep up the heat.

The illustration at the top of the next page will give you a clear idea of just how a hot water plant operates. The water in the boiler, heated by the fire, rises to the radiator, where it gives up its heat and then returns through the return pipe to the boiler again. The reason for

this circulation of the water is that hot water is lighter than cold water. The hot water in

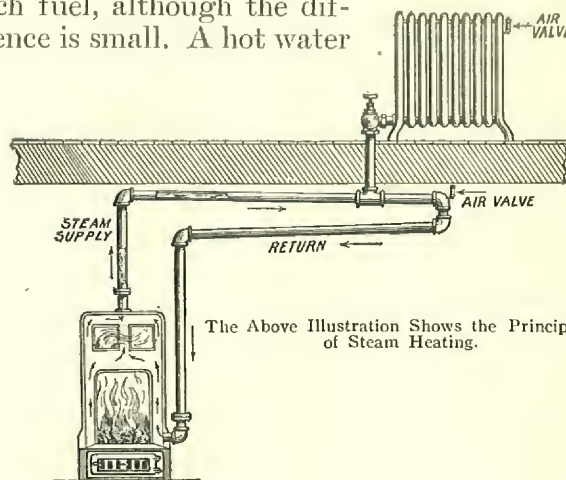


the boiler is forced out and upward by the cooler, heavier water coming down from above. The water also expands when it is heated, which explains the necessity of the expansion tank to take care of the increased volume.

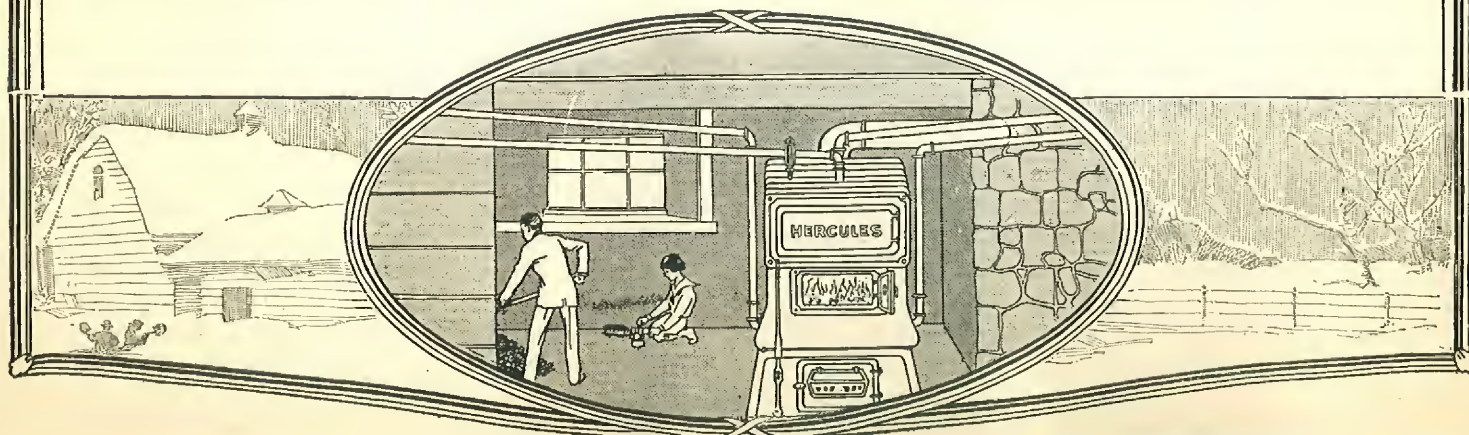
The rate at which the water travels depends upon the difference in temperature between the water going to the radiator and that coming back from it. It has been found that when water is placed under pressure it can be raised to a higher temperature before it will boil. As remarked, the higher the temperature, the faster the circulation and, therefore, the hotter the radiators can be kept. Our Hercules Improved Circulator, which we include in our estimate, unless asked to omit, gives the necessary extra pressure, increasing the rate of circulation to a degree which gives our Hercules Hot Water Plants practically the combined advantages of both a hot water and steam heating system.

The operation of a steam heating system is shown in the illustration below. The steam from the boiling water in the boiler rises through the pipe at the top and travels to the radiators. There, on giving up its heat, it is condensed to water again and flows back through the return pipe to the lower part of the boiler. Low pressure steam systems are extensively used for large buildings, such as apartment houses, schools, etc.

Hot water heating is recommended for practically every kind and size of building where a steady, easily controlled heat is required day after day. It is superior to any other system in range of control, since the heat is easily regulated from merely warm to extremely hot, as wished. Steam has the advantage that quicker, more intense heat can be obtained, and the heat can be carried longer distances or to greater heights. For instance, steam heat is almost universally used in the tall city skyscrapers and wherever the heat is carried from one building to another. Hot water is not heated as high as steam, so does not require quite as much fuel, although the difference is small. A hot water



plant costs slightly more than a steam system because there is more piping, as you will notice by comparing the illustration of hot water heating with that of steam heating.



There is little to choose between a hot water and a steam system, although for residences we always recommend a hot water system, since it is simpler to handle, more easily regulated and in general requires less fuel.

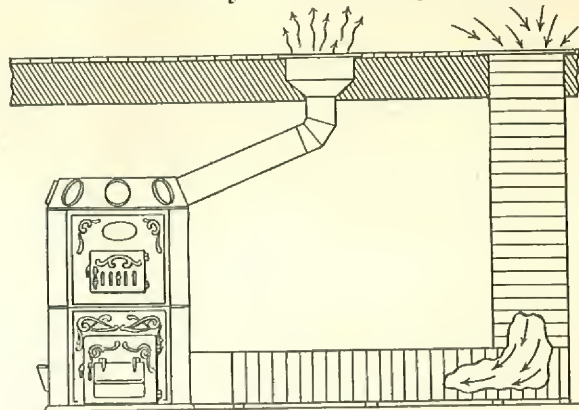
The Advantages of Warm Air Heating

The principles and action of warm air heating are shown thoroughly by the illustration on this page. Air is heated in the upper part of the furnace and rises through the pipes to the rooms above. It continues to rise while hot, and then as it cools begins to drop again, since cold air is heavier than warm air. In our warm air systems provision is made to lead the cooled air through a return air register and passage back to the furnace again, where it is reheated and again rises.

Our Hercules Warm Air Systems have several advantages over other methods. To heat every part of the house by a warm air system it is absolutely necessary to have good air circulation. This is easy to understand when you consider what happens when you blow air into a bag. After you have blown in a certain amount of air it is impossible to get any more in. It is the same in filling a house with warm air. If no provision is made to keep the air moving by returning it to the furnace after cooling, the system ceases to act efficiently after the heat has been on for awhile, and the results are unsatisfactory. A second very important advantage of the circulation afforded by our system is its healthfulness. Scientists have proved that if the air in a building is kept in motion it will continue fit for breathing purposes much longer than when there is no circulation, even if no fresh air is permitted to enter. As a matter of fact, plenty of fresh air enters through the doors and windows of any house.

Warm air heating systems are particularly recommended for churches, halls and other buildings of only one or two floors, where it is usually necessary to heat up quickly and thoroughly for a few hours and then the fire is

allowed to go out. For private homes, where the furnace can be centrally located and where it is not necessary to run very long pipes;

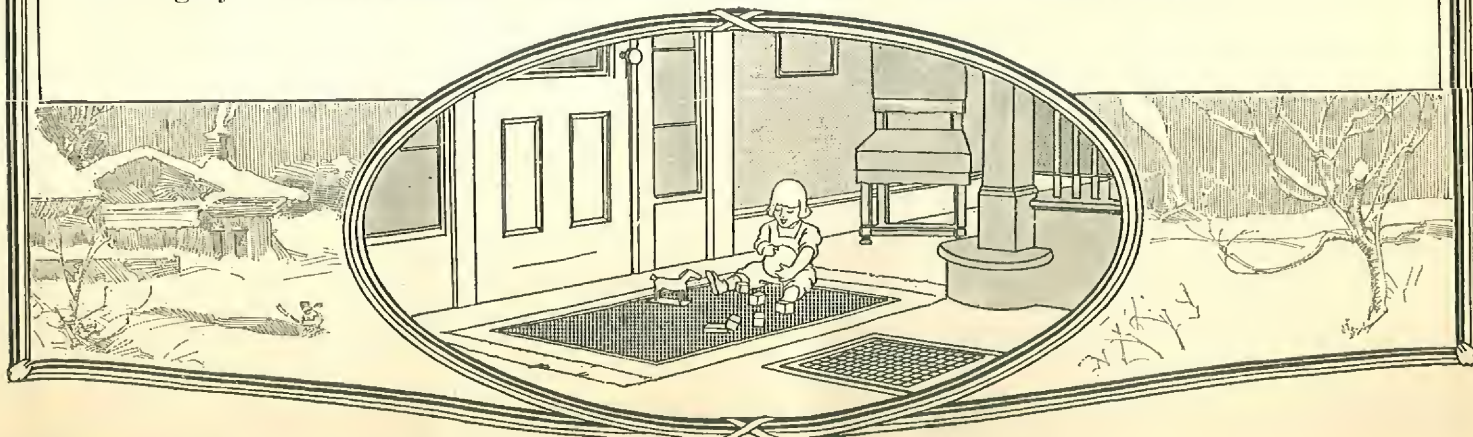


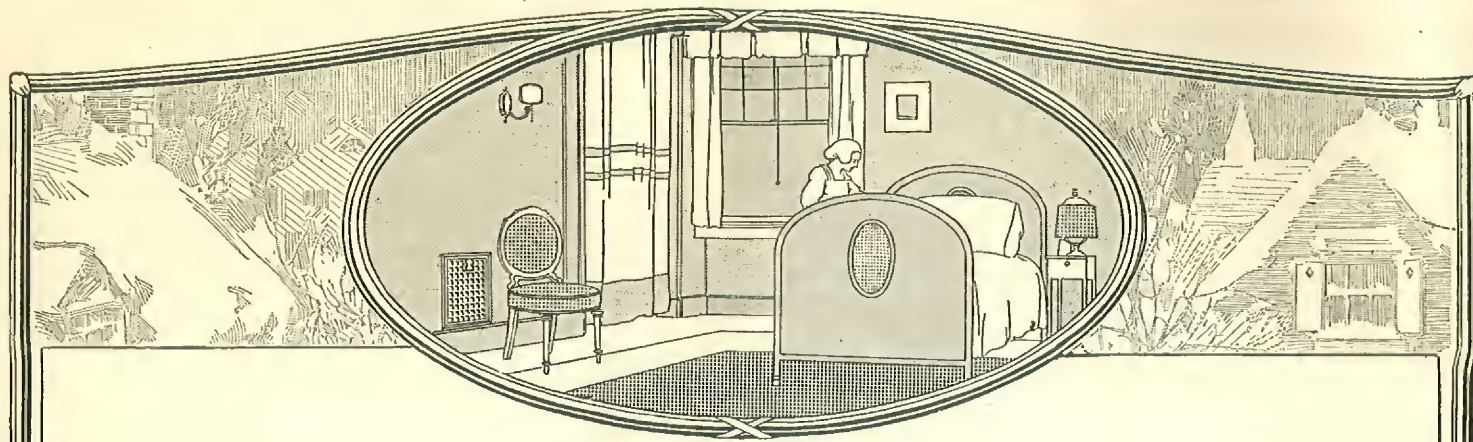
The Principles of Warm Air Heating.

where, furthermore, there are only two or three floors to heat, a warm air plant gives excellent results when installed according to the plans we will furnish. It is only necessary to remember that air quickly loses its heat if it must be carried too far in the pipes before reaching the different rooms. Therefore, do not expect a warm air plant satisfactorily to heat rooms over 20 or 30 feet from the furnace.

Warm air plants cost less than hot water or steam plants. The registers take up less space in the rooms than the radiators of the other plants. The continuous circulation of the air in the rooms and the fact that this air is constantly being mixed with fresh air coming in through the doors and windows is an advantage that cannot be overlooked.

We leave the choice to you. If installed according to our plans, drawn specially for your building, we guarantee satisfactory results with any of the three styles. There are certain cases in which it would be impossible to guarantee satisfaction with a warm air plant. In case you ask us for an estimate on a warm air system for a building in which we know such a system would not give satisfactory results, we promise to give you our impartial advice as to the best system to use.





In our heating department we employ expert heating engineers who have had years of experience in estimating and designing heating plants of all kinds for every description of building. Our estimate to you is made out by experts with the sole idea of giving you perfect satisfaction in the heating of your building with a plant that will meet every demand made upon it by the very coldest weather. We keep a copy of the estimate with your letter.

Our Care in Filling Your Order

When your order is received it is referred to one of our heating experts, who then makes a working drawing, or layout, of the plant, under the supervision of the manager, planning the arrangements in a way that will insure the best results with the use of the least amount of fuel. For instance, in hot water or steam systems if it is found that a pipe must be run for a considerable distance from the main line, this pipe is increased in size to insure perfect circulation. The expert sees to it also that no registers for warm air heating are placed where the pipe will be exposed to the cold before reaching the proper room.

After the working plans have been carefully laid out and approved by the manager a list of all the items necessary for erecting the plant is made in three copies. The original copy is sent to you, the second copy is used for filling the order and the third copy is kept by us for future reference. On a pipe order blank each piece of pipe is set down, with size and length. From this the pipe is carefully cut in the exact lengths necessary, and, in the case of steam and hot water pipe, it is also carefully threaded and reamed in our pipe shop.

After all the materials necessary for your plant have been gathered together they are carefully rechecked and inspected before being packed, to make doubly sure your Hercules plant will not only be complete but will also prove satisfactory in every sense of the word. With your order we send you the complete working plans for installing the plant in your particular building, as well as a booklet of complete directions for every operation. To bring about the very best results our working plans should be followed precisely. In fact, we cannot guarantee complete satisfaction unless these plans are followed. Our heating experts have had wide experience and know their business thoroughly. They always arrange for the easiest and best installation. Although they will, if possible, locate boilers or

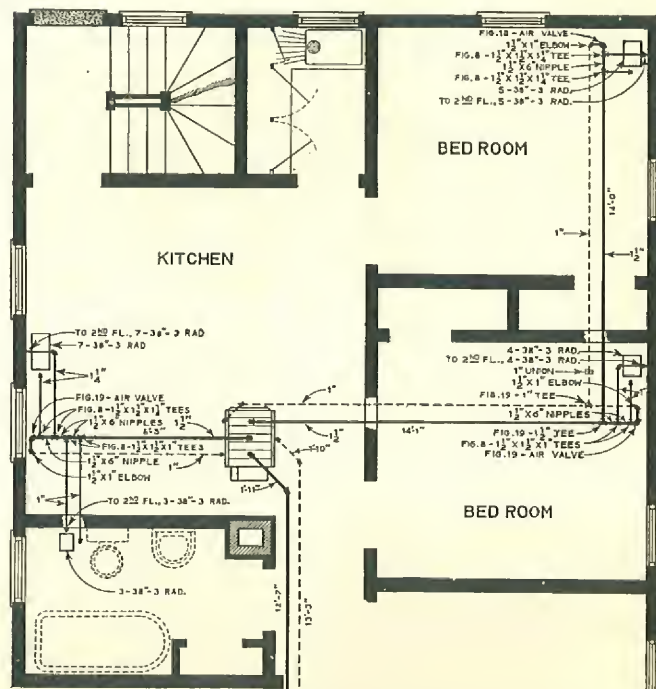
furnaces, radiators or registers where our customers would like to place them, they are careful to plan for efficiency first of all. If you follow our plans we guarantee you the satisfaction you look for.

Our Terms

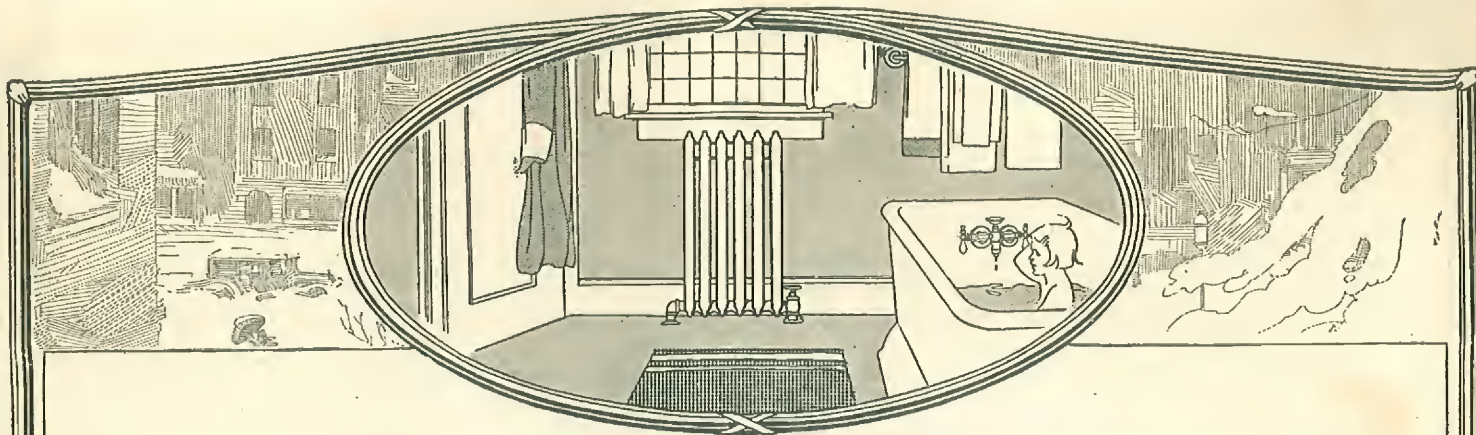
We require cash in full with your order, or a remittance equal to 40 per cent (two-fifths) of the order and the balance C. O. D. You can send the money in the form of an express or postoffice money order, or a bank draft. If you send currency, be sure you register the letter. You may, of course, send us your personal check if you have a checking account at a bank.

Freight Charges

If you are quoted a price for a heating plant delivered free, without any extra charges to pay, you may be sure the freight charges are included in the price, no matter how it is figured. In our estimate to you we will tell you not only what the plant will cost, but also what the



Part of the Plans Furnished With a Hot Water Heating Plant.
(Very Much Reduced in Size.)

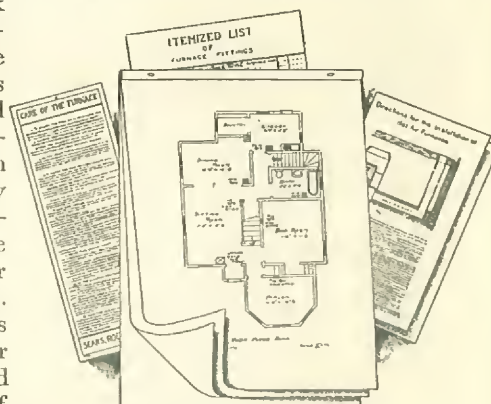


freight charges will amount to. Thus you will know just what you are getting and paying for. As you will see when you get our price, the freight charges amount to little compared with the saving you make in buying from us.

If You Have Your Plant Installed by Another Party

The great majority of our customers have installed their plants themselves, or with the aid of some handy man only. You will have no trouble in installing your Hercules plant so that it will work perfectly if you follow our drawings and instructions carefully. Thousands have done it, even though they had never done that sort of work before. If, however, you wish to have the work done, the cost will be a small item. For hot water and steam plants the average charge is from \$6.00 to \$7.00 per radiator for labor covering the installation of the entire plant. For instance, to install a plant with eight radiators would cost from \$48.00 to \$56.00, depending on the location. For a warm air plant the usual charge is from \$20.00 to \$30.00.

On the following pages you will find a splendid line of hot water and steam boilers, warm air furnaces, radiators, registers and other heating accessories. The prices speak for themselves. The quality is backed by our guarantee, which we certainly could not afford to give on inferior materials. Our experts are at your service, and free of charge, to plan and estimate for you, and to help you in ordering the proper material to give the best results. You are aiming to have modern heating in your home at some time. Why not begin now to plan the system?



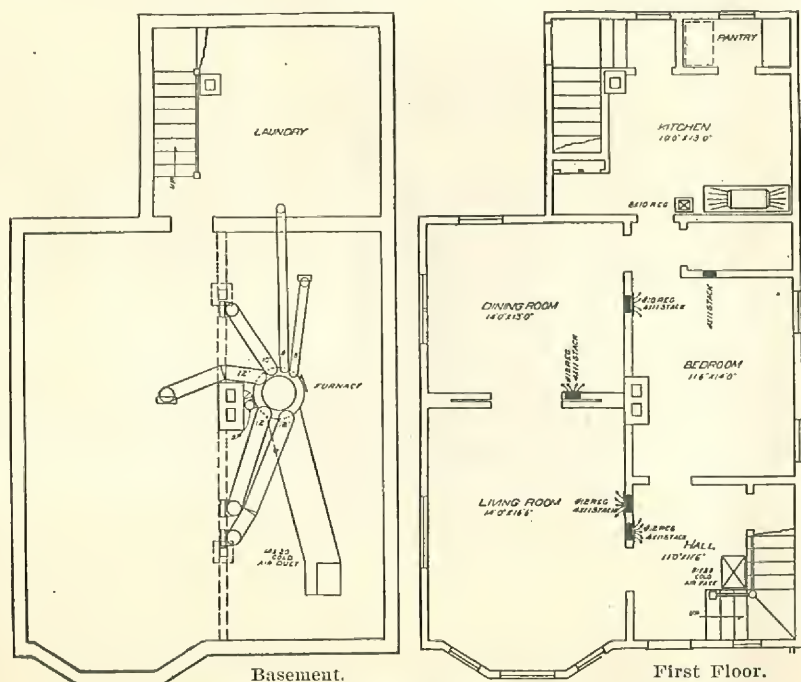
Sent With Your Order.

As a matter of fact, you cannot do better than to buy at an early date. Prices have been rising for some time, and we see no promise of a drop. The longer you wait the more it is likely to cost you. Certainly the cost is reasonable enough if you buy your plant from us at our present prices. We advise you to take advantage of these prices and get your heating plant while it is within reach of your pocket-book.

A Suggestion

Fill out the enclosed information blank at all events and get our estimate. Then you can do your figuring after our estimate arrives. When you see our reasonable figure for the complete plant and begin to think of the comfort it will bring you for years and years to come, we are confident you will not want to be without modern heat any longer.

Follow the footsteps of thousands of pleased customers who would not sell their Hercules Heating Plants at any price if they could not get another. We give a few of their names and addresses on pages 28, 29 and 39.

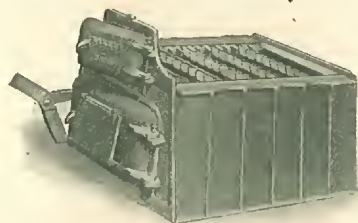


Two of the Working Plans Furnished With a Warm Air Heating Plant.
(Very Much Reduced in Size.)

Hercules Cast Iron Sectional Boilers

(Hercules Is Our Own Trade Mark, Registered in U. S. Patent Office.)

THE Hercules Boilers listed on pages 10 to 17 are made in one of the most modern foundries in the United States. It is equipped with the latest improved labor saving machinery used for manufacturing cast iron boilers. The large ladles, which hold many tons of molten metal, are conveyed from one end of the foundry to the other by traveling cranes. These not only carry the metal from the



Boiler Base, illustrating method of shaking and dumping grates.

cupola to the molds, but also do all the heavy lifting, such as raising the molds to draw out the patterns and conveying the heavy castings from the foundry to the machine shop. This alone makes quite a saving to you in the cost of your Hercules Boiler, for these cranes do the work of many men.

Before the iron is cast a sample is taken from the cupola and analyzed by an expert chemist to make sure that it is of the proper consistency to give the most satisfactory service after the boilers are in use.

After the castings have been taken from the molds they are conveyed to the inspection room, where they are carefully examined for flaws or defects. Those found imperfect are broken up and returned to the cupola, while the castings which pass inspection are sent to the machine shop, where the core and molding sand is removed and the parts machined for assembling.

From the machine shop they are taken to the assembly room, where the sections of the 13 and 17-inch boilers are assembled on large hydraulic presses, and the other parts, such as base, grates, doors and smoke box, are properly fitted and packed for shipment. After the sections are assembled each boiler is carefully tested under hydraulic pressure for leaks or other defects. If found perfect they are stored away.

In designing the Hercules Boilers we have been very careful to take into consideration not only the standard principles of good boiler construction, but also the little features which add so much to the convenience, efficiency and long life of the heating system.

First of all we have kept the proper proportion between the grate and heating surface in each of the different size boilers, regardless as to the number of sections they contain. This is only possible by assembling the boiler with the sections one against the other in a horizontal position so that an extra grate bar can be added for each section.

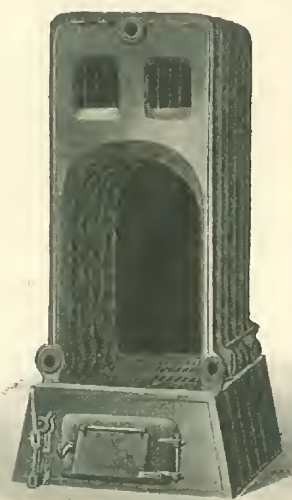
In order to insure the greatest possible efficiency, we have made the fire pot deep and the flues of suitable size to produce the proper draft and at the same time absorb the heat as the gases and smoke pass through them to the chimney. The draft and check dampers have been placed where they will enable you to have perfect control over the fire, regardless as to the condition of the outside atmosphere.

The base of all Hercules Boilers is sufficiently large to allow plenty of space for ashes, and the grate bars are designed to burn either hard coal, soft coal, coke or wood and give very satisfactory results. The holes in the grates are small enough so that fine coal can be used, and still are not too small to allow the use of lump coal or screenings, which form clinkers and require a large amount of air space.

The grates, as shown in the illustration, are attached to a long connecting bar which extends through the front of the base. To this bar a shank and shaker handle are connected. A special latch at the front of the ash pit allows the grates to be either shaken or dumped, as desired.

As all parts of our Hercules Boilers are made from the same master patterns and machined by means of jigs, there will be no difficulty in replacing any of the castings should it ever become necessary.

13 and 17-Inch Fire Pot Hercules Boilers



Sectional View of 13-Inch Series.

These boilers are especially adapted for heating residences, although they are also used to some extent for heating water and other liquids in tanks and vats, and for furnishing steam, under low pressure, for commercial purposes. They are built with a deep fire pot, entirely surrounded with water, large return flues, and have a sufficient firing surface to

enable them to be operated economically and with little attention.

For Hot Water and Steam Heating Plants

Because of the unusually large amount of grate surface and the deep fire pot, the Hercules Boilers will heat up quickly, and a sufficient amount of coal can be put in the boiler at one time to maintain a perfect fire for twelve to fourteen hours without further attention. The most economical results are obtained from a deep bed of coals burning slowly, because, when fired in this manner, practically two-thirds of the fuel is converted into gas, which is best consumed when it must work its way up through the hot mass of fire. In this way no unconsumed gas escapes and the large return flues absorb the heat as fast as it is generated.

As the 13 and 17-Inch Hercules Boilers are shipped with the sections assembled, it is only necessary to set the base upon the floor and then place the sectional part upon it. Their compact form enables them to be taken into a building as easily as a radiator; in fact, the No. 717 boiler will pass through an opening 25 inches wide by 4 feet 11 inches high.

21, 24 and 32-Inch Fire Pot Hercules Boilers

The 21, 24 and 32-inch boilers have been designed to meet the requirements of large residences, halls, churches, factories and other buildings that are too large to be heated with the 13 and 17-inch boilers. They are made in three widths of fire pot, as specified above, and the interior construction is practically the same, except that the larger sizes have larger grate surface and more flue and heating surface. The general design of all Hercules Boilers makes the use of any kind of fuel practical. Hard coal, soft coal, coke or wood can be used with very good results.

The water ways of the 21, 24 and 32-inch boilers are large, producing a uniform circulation when used for hot water heating and a steady water level when used for steam. The fire pot is entirely surrounded by water, and all surfaces that come in contact with the fire are corrugated to present a greater area, thus absorbing most of the heat as soon as it is generated.

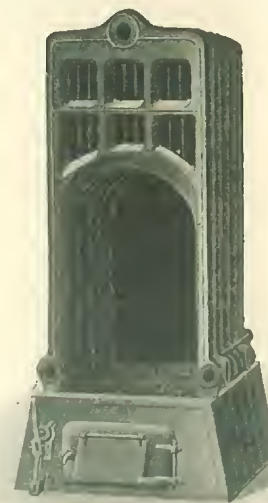
The sections are put together with non-rusting push nipples and the grates are of the multiple shaking and dumping pattern. The grates rest upon the base, so that the sections are not affected in any way when the grates are shaken or when it is necessary to replace one of the grate bars. The ash pit is large and deep, allowing ample space for the accumulation of ashes.

The Hercules Boilers are guaranteed to have a heating capacity equal to any sectional boiler made, of the same size fire pot and the same number of sections. They are in every sense of the word substantial, economical and inexpensive return flue boilers of the latest approved pattern.

How Boiler Ratings Are Figured

All hot water and steam boilers are rated according to the actual square feet of radiation, or amount of

heat, they will carry at the boiler. Notice in the following pages that the heating capacity of a boiler is always given in square feet of radiation. Hot water ratings are based on a temperature of 180 degrees Fahrenheit, while steam ratings are figured on a basis of 2 pounds pressure. These ratings do not include the heating surfaces of the flow pipes, return pipes and connections. To find the size boiler necessary to heat a building, we add 75 per cent, or three-fourths, to the total amount of radiation, or square feet of heating surface, contained in the radiators that are to be used. (See page 19 for radiator sizes.) This is to allow for the heat lost from the mains and connections and also to insure a reserve capacity. When a coil or water heater is placed in the fire pot to heat water for domestic use, allow 2 square feet of radiation additional for hot water and $1\frac{1}{4}$ square feet for steam for every gallon of water contained in the range boiler or storage tank. For instance, if a 30-gallon range boiler is to be connected to a fire pot coil or heater, figure on 60 square feet extra radiation when selecting a hot water boiler and $37\frac{1}{2}$ square feet extra when selecting a steam boiler.



Sectional View of 17-Inch Series.

The Best Fuel to Use

The ratings of all Hercules Boilers were obtained with a hard coal fire. Anthracite, commonly called hard coal, is the most satisfactory fuel to use, as it requires less attention and does not produce so much soot. It may be had in a number of sizes, but the range or small egg size will be found the most suitable. If you will use soft coal, coke or wood, select a boiler with a radiation equal to just *twice* the total amount of heating surface contained in the radiators, or 25 per cent greater than you will need when burning hard (anthracite) coal. Soft coal requires a greater grate surface because it cakes together and will not let the air pass through readily. It also requires more heat absorbing surface, as the soot settles in the flues and is harder to remove than the dust from hard coal. A deposit of soot on the heating surfaces of any boiler will greatly reduce its efficiency, as it acts as an insulator, preventing the heat from passing through into the water.

Hercules 17-Inch Fire Pot Hot Water Boilers



THIS is one of the most popular boilers we sell, not only because of our exceptionally low prices, but because it is suitable for heating the average home, which as a rule contains from five to ten rooms, and our thousands of satisfied customers have been quick to appreciate its many advantages and recommend it to their friends and neighbors.

It is made of cast iron in four, five, six and seven sections, as listed below. Each boiler is carefully tested before being packed for shipment and is guaranteed for a working pressure of not over 20 pounds. Because of the size of the fire door, which is 8 inches high by 12 inches wide, this boiler will be found very convenient for burning wood. Large chunks can be put into the fire pot at one time and the fire then regulated to produce just the amount of heat required.

The smaller illustration on the opposite page shows the internal construction and fire travel. The smoke and gases rising from the fire pass forward through the lower tier of flues and then back through the upper flues to the chimney. This gives practically twice the heating surface that could be obtained were there but one set of flues, and partly accounts for the unusual results which it has given our customers. For a more complete description see pages 8 and 9.

All boilers have the necessary tappings for thermometer, altitude gauge, drain cock, and feed and return pipes as specified below. They are also equipped with a complete set of firing tools which consist of a hoe, flue brush with handle and a poker. Pipe and pipe fittings are shown on pages 25 to 27.

Before selecting a boiler be sure to refer to "How Boiler Ratings Are Figured" on page 9.

No. 42B2025 $\frac{1}{3}$ Hercules Sectional Hot Water Boilers

Shipped From Factory in WESTERN NEW YORK.

No.	Size of Fire Pot, Inches	Size of Smoke Pipe, Inches	Floor Space, Including Smoke Box, Inches	Tappings		Height Over All, Inches	Heating Capacity, Square Feet of Radiation	Shipping Weight, About, Pounds	Price
				Flow	Return				
417	17x14	9	26x25	2-2 $\frac{1}{2}$ in.	2-2 $\frac{1}{2}$ in.	58	500	860	\$ 71.20
517	17x17	9	26x28	2-2 $\frac{1}{2}$ in.	2-2 $\frac{1}{2}$ in.	58	700	1,035	78.00
617	17x21	9	26x32	2-2 $\frac{1}{2}$ in.	2-2 $\frac{1}{2}$ in.	58	900	1,210	89.25
717	17x25	9	26x36	3-2 $\frac{1}{2}$ in.	3-2 $\frac{1}{2}$ in.	58	1,050	1,385	105.00

PRICES ARE SUBJECT TO MARKET CHANGES.

All of the above boilers have two openings through the back section so a No. 42B2006 Coil may be placed in the fire pot for heating water for domestic use.

Saved More Than \$100.00 on His Hercules Plant.

43 Averill Place, Branford, Conn.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—The Hercules Hot Water Plant I purchased from you last September proved very satisfactory, as I was able to heat my entire home during the past Winter with a temperature on the boiler of but 170 degrees. Best of all, I saved just \$108.38 over what a local plumber wanted for a similar plant. Enclosed you will find the names of three parties who are interested in heating their homes with hot water plants.

Yours very truly,

MERRITT A. HUGINS.

No. 42B2006 Pipe Coil to be placed in the fire pot of above boiler to heat water for domestic use. Tapped for $\frac{3}{4}$ -inch iron pipe. When ordering state size of range boiler to which coil is to connect. Shipped from CHICAGO. Shipping weight, about 10 pounds.

Price.....\$1.50



Hercules 17-Inch Fire Pot Steam Boilers

FOR heating residences and other buildings that require a boiler with a capacity of from 325 to 625 square feet of steam radiation, and for furnishing steam under a low pressure for commercial purposes.

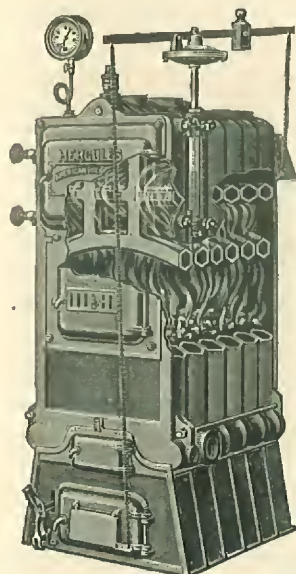
The 17-Inch Hercules Steam Boilers are of practically the same construction as the hot water boilers shown on the opposite page, except that they have the necessary steam trimmings. They are made of cast iron and because of their scientific construction have proven exceptionally efficient.

Each boiler is tested under water pressure before being shipped and is guaranteed to withstand a working pressure of 20 pounds. The sections are connected with non-rusting push nipples at the center of the top and each side of the bottom, which allows the

water to circulate freely through the lower part of the boiler and insures a uniform flow of steam into the feed pipes.

All boilers have a fire door 8 inches high and 12 inches wide and are furnished complete with the necessary steam trimmings and firing tools, which consist of a steam gauge to register the pressure on the system, a water gauge to show the height of water in the boiler, two try cocks to be used in case the water gauge glass should become broken, a safety valve set at 10 pounds, a diaphragm regulator with chains and pulleys to maintain a constant pressure, and a flue brush with handle, a hoe and a poker.

Pipe and pipe fittings are shown on pages 25 to 27.



Cross section view showing fire travel and internal construction.



Before selecting a boiler be sure to refer to "How Boiler Ratings Are Figured" on page 9.

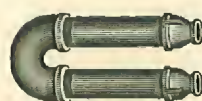
No. 42B2024 $\frac{1}{3}$ Hercules Sectional Steam Heating Boilers

Shipped From Factory in WESTERN NEW YORK.

No.	Size of Fire Pot, Inches	Size of Smoke Pipe, Inches	Floor Space, Including Smoke Box, Inches	Tappings		Height, Over All, Inches	Heating Capacity, Sq. Ft. of Radiation	Height to Water Line, Inches	Shipping Weight, About, Pounds	Price
				Flow	Return					
174	17x14	9	26x25	2-2 $\frac{1}{2}$ in.	2-2 $\frac{1}{2}$ in.	58	325	39	890	\$ 76.05
175	17x17	9	26x28	2-2 $\frac{1}{2}$ in.	2-2 $\frac{1}{2}$ in.	58	425	39	1,065	85.80
176	17x21	9	26x32	2-2 $\frac{1}{2}$ in.	2-2 $\frac{1}{2}$ in.	58	525	39	1,240	97.05
177	17x25	9	26x36	3-2 $\frac{1}{2}$ in.	3-2 $\frac{1}{2}$ in.	58	625	39	1,415	113.10

PRICES ARE SUBJECT TO MARKET CHANGES.

All of the above boilers have two openings through the back section so a No. 42B2006 Coil may be placed in the fire pot for heating water for domestic purposes.



No. 42B2006 Pipe Coil to be placed in the fire pot of the above boiler to heat water for domestic use. Tapped for $\frac{3}{4}$ -inch iron pipe. When ordering state size of range boiler to which coil is to connect. Shipped from CHICAGO. Shipping weight, about 10 pounds.

Price \$1.50

70 Degrees With 3 Pounds Pressure When 35 to 40 Below Zero Outside.

Sears, Roebuck and Co., Chicago, Ill. Clearbrook, Minn. Gentlemen:—One pound pressure on my Hercules Steam Plant will keep the house comfortable when the outside temperature is around zero, and 3 or 4 pounds of steam will heat the rooms to 70 degrees when the thermometer registers 35 to 40 below zero outside. I find that the plant is a great fuel saver as compared with heating stoves. I installed the system according to your blue prints and had plenty of material to complete the plant. Three friends who saw my Hercules plant in operation have expressed a desire to obtain a similar system for their homes. Yours very truly, HIRAM KAHLER.

Hercules 21-In. Fire Pot Hot Water Boilers



A GREAT favorite for heating flat, apartment and other buildings that require a larger boiler than the 17-inch fire pot heaters shown on page 12. The 21-inch boiler is also especially adapted for buildings with low basements, as its total height is but 52 inches.

It is made of cast iron in four sizes, as shown below, with capacities of from 1,000 to 1,750 square feet of radiation. The sections are properly machined and carefully tested before leaving the factory, but are not put together, because of their weight and size. If assembled before shipping the boilers would be so heavy as to make handling very inconvenient and they could not be taken into a building through an ordinary doorway. All necessary material for assembling and a complete set of instructions are included with each boiler, making it a simple matter to erect the heater.

Because of their peculiar construction these boilers have proven very efficient. The smaller illustration on the opposite page

shows the internal design and fire travel. The hot gases and smoke enter the two outside flues at the back and travel through them to the front of the boiler. They then pass into the center flue, through which they are conducted to the chimney. The two outside flues are just half the size of the center one. This causes the gases, when they are the hottest, to pass through two smaller openings instead of one large one, thereby assuring greater efficiency. For a more complete description see pages 8 and 9.

All boilers have a fire door 8 inches high and 16½ inches wide and are tapped for thermometer, altitude gauge, drain cock and feed and return pipes. They are also furnished with a complete set of firing tools, consisting of a hoe, poker and flue brush with handle. Pipe and pipe fittings are shown on pages 25 to 27.

Before selecting a boiler be sure to refer to "How Boiler Ratings Are Figured" on page 9.

No. 42B2027¹/₃ Hercules Sectional Hot Water Boilers

Shipped From Factory in WESTERN NEW YORK.

No.	Size of Fire Pot, Inches	Size of Smoke Pipe, Inches	Floor Space, Including Smoke Box, Inches	Tappings		Height Over All, Inches	Heating Capacity, Square Feet of Radiation	Shipping Weight, About, Pounds	Price
				Flow	Return				
521	21x26	8	33x38	2-3 in.	2-3 in.	52	1,000	1,530	Prices Quoted on Application.
621	21x32	10	33x45	2-3 in.	2-3 in.	52	1,250	1,890	
721	21x38	10	33x51	3-3 in.	3-3 in.	52	1,500	2,250	
821	21x44	10	33x58	3-3 in.	3-3 in.	52	1,750	2,610	

PRICES ARE SUBJECT TO MARKET CHANGES.

All of the above boilers have two openings through the back section so a No. 42B2007 Coil may be placed in the fire pot for heating water for domestic use.

Reduces His Coal Bill \$15.00.

11819 Wallace St., Chicago, Ill.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—My Hercules Hot Water Heating Plant has proven more satisfactory than I expected. Last Winter I heated every room in my home and my coal bill was \$27.45, which is \$15.00 less than it cost me to heat but three rooms with two stoves. I am so well pleased with the plant that I have interested a friend in the Hercules system. You will find his name and address attached.

Yours truly,

A. C. BUSHEE.

No. 42B2007 Pipe Coil to be placed in fire pot of above boiler to heat water for domestic use. Tapped for ¾-inch iron pipe. When ordering give size of range boiler or storage tank to which it is to connect. Shipped from CHICAGO. Shipping weight, about 11 pounds.



Price.....\$1.75

Hercules 21-Inch Fire Pot Steam Boilers

OF THE same high quality material and workmanship as the hot water boilers shown on the opposite page. The 21-Inch Hercules Steam Boilers are recommended for supplying steam under low pressure for heating or commercial purposes. They are particularly adapted to heating buildings with low basements, as the height to the water line is but 44 inches and the height over all but 52 inches.

The boilers are made of cast iron in four sizes, as listed below, with ratings of 600 to 1,050 square feet of radiation. Each boiler is carefully tested before leaving the factory and is furnished with a safety valve set at 10 pounds. This should be ample for all heating purposes, but, if necessary, they may be operated under a pressure of not more than 20 pounds. The boiler sections are not put together at the factory, because of their size and weight. If assembled, they would be so heavy that it would be practically impossible to handle them without a hoist or lift, and they could not be taken into a building through an ordinary door. A complete set of instructions and the necessary material for assembling are sent with all boilers, making it a simple matter to erect them.



Cross section view showing internal construction and fire travel.

The smaller illustration on this page shows the internal construction and fire travel of all 21-inch boilers. The smoke and gases pass to the front of the boiler, through the two outer flues and then back to the chimney through the large center flue. This gives a return flue, or double fire travel, which means greater heating efficiency. For a more complete description see pages 8 and 9.

The size of fire door for all 21-Inch Hercules Boilers is 8 inches high by 16½ inches wide. Each boiler is furnished with a complete set of steam trimmings and firing tools, consisting of steam gauge, water gauge, two try cocks, a safety valve set at 10 pounds, a diaphragm regulator with chains and pulleys to attach to draft and check dampers, and a hoe, poker and flue brush. Pipe and pipe fittings are shown on pages 25 to 27.



The size of fire door for all 21-Inch Hercules Boilers is 8 inches high by 16½ inches wide. Each boiler is furnished with a complete set of steam trimmings and firing tools, consisting of steam gauge, water gauge, two try cocks, a safety valve set at 10 pounds, a diaphragm regulator with chains and pulleys to attach to draft and check dampers, and a hoe, poker and flue brush. Pipe and pipe fittings are shown on pages 25 to 27.

The size of fire door for all 21-Inch Hercules Boilers is 8 inches high by 16½ inches wide. Each boiler is furnished with a complete set of steam trimmings and firing tools, consisting of steam gauge, water gauge, two try cocks, a safety valve set at 10 pounds, a diaphragm regulator with chains and pulleys to attach to draft and check dampers, and a hoe, poker and flue brush. Pipe and pipe fittings are shown on pages 25 to 27.

Before selecting a boiler be sure to refer to "How Boiler Ratings Are Figured" on page 9.

No. 42B2026⅓ Hercules Sectional Steam Heating Boilers

Shipped From Factory in WESTERN NEW YORK.

No.	Size of Fire Pot, Inches	Size of Smoke Pipe, Inches	Floor Space, Including Smoke Box, Inches	Tappings		Height Over All, Inches	Height to Water Line, Inches	Heating Capacity, Sq. Ft. of Radiation	Shipping Weight, About, Pounds	Price
				Flow	Return					
215	21x26	8	33x38	2-3 in.	2-3 in.	52	44	600	1,560	Prices Quoted on Application
216	21x32	10	33x45	2-3 in.	2-3 in.	52	44	750	1,920	
217	21x38	10	33x51	3-3 in.	3-3 in.	52	44	900	2,280	
218	21x44	10	33x58	3-3 in.	3-3 in.	52	44	1,050	2,640	

All of the above boilers have two openings through the back section so a No. 42B2007 Coil may be placed in the fire pot for heating water for domestic purposes.

No. 42B2007 Pipe Coil to be placed in fire pot of above boiler to heat water for domestic use. Tapped for ¾-inch iron pipe. When ordering give size of range boiler or storage tank to which



it is to connect. Shipped from CHICAGO. Shipping weight, about 11 pounds. Price...\$1.75

Beats Anything in the Heating Line for Economy and Cleanliness.

Sears, Roebuck and Co., Chicago, Ill. 715 Ross St., Hamilton, Ohio.

Gentlemen:—I am well pleased with the Hercules Steam Heating Plant which I purchased from you. I most heartily recommend it as beating anything I know of in the heating line for economy and cleanliness. I will be pleased to show anyone in this vicinity my heating system, as I know it will bear inspection. Please send your Heating Catalog to the four parties whose names you will find enclosed; they desire to obtain serviceable heating systems for their homes.

Yours very truly,
W. G. RENTSCHLER.

Hercules 24 and 32-Inch Fire Pot Hot Water Boilers



WHEN designing cast iron boilers of large capacities it is not only necessary to obtain the highest efficiency, but also to make the boiler as compact as possible. The Hercules 24 and 32-Inch Hot Water Boilers are manufactured in a number of different sizes with ratings of 1,650 to 5,200 square feet of radiation, as listed below. You will notice from the list of sizes that, although the boilers have the required amount of grate surface, they take up a comparatively small amount of floor space. This is accomplished by placing the flues in tiers or sets, one above the other, as shown in the smaller illustration on the opposite page, thus giving the necessary heating surface. When so constructed the boilers prove more efficient, as the flue surfaces are kept in a compact form where they can absorb the greatest amount of heat from the gases passing to the chimney, instead of being spread over a large area.

As stated in the preceding pages, these boilers are guaranteed to be equal in quality, workmanship and efficiency to any cast iron boiler made, with the same size grate surface.

The sections are properly machined and tested before leaving the factory, but are not assembled because of their size and weight. If put together they could not be handled without a lift or hoist and it would be impossible to take them into a building through an ordinary door. For a more complete description see pages 8 and 9.

All boilers have the necessaryappings for thermometer, altitude gauge, drain cock, and feed and return pipes. Each boiler is furnished with a set of firing tools, consisting of a hoe, poker and flue brush with handle. Pipe and pipe fittings are shown on pages 25 to 27.

Before selecting a boiler be sure to refer to "How Boiler Ratings Are Figured" on page 9.

No. 42B2029 $\frac{1}{2}$ Hercules Sectional Hot Water Boilers

Shipped From Factory in WESTERN NEW YORK.

24-INCH GRATE.

No.	Size of Fire Pot, Inches	Size of Smoke Pipe, Inches	Floor Space, Including Smoke Box, Inches	Tappings		Height Over All, Inches	Heating Capacity, Square Feet of Radiation	Shipping Weight, About, Pounds	Price
				Flow	Return				
624	24x36	10	40x46	2-3 in.	2-3 in.	59	1,650	2,200	Prices Quoted on Application
724	24x42	12	40x52	3-3 in.	3-3 in.	59	2,000	2,650	
824	24x48	12	40x58	3-3 in.	3-3 in.	59	2,400	3,105	

32-INCH GRATE.

No.	Size of Fire Pot, Inches	Size of Smoke Pipe, Inches	Floor Space, Including Smoke Box, Inches	Flow	Return	Height Over All, Inches	Heating Capacity, Square Feet of Radiation	Shipping Weight, About, Pounds	Price
732	32x40 $\frac{1}{2}$	14	50x57	2-4 in.	2-4 in.	66	2,950	4,835	Prices Quoted on Application
832	32x47	14	50x63	2-4 in.	2-4 in.	66	3,400	4,840	
982	32x53 $\frac{1}{2}$	14	50x69	3-4 in.	3-4 in.	66	3,850	5,340	
1032	32x60	14	50x75	3-4 in.	3-4 in.	66	4,300	5,845	
1132	32x66 $\frac{1}{2}$	16	50x81	3-4 in.	3-4 in.	66	4,750	6,425	
1232	32x74	16	50x87	4-4 in.	4-4 in.	66	5,200	6,890	

All of the above boilers have two holes through the back section so a No. 42B2008 or 42B2009 coil may be placed in the fire pot for heating water for domestic use.

Saves \$175.00 on His Hercules Plant.

R. F. D. No. 4, Box 27B, Toledo, Ohio.
Sears, Roebuck and Co., Chicago, Ill.
Gentlemen:—My Hercules Hot Water Plant, installed, cost me just \$175.00 less than what a local dealer wanted. We have just emerged from an exceptionally severe Winter for this locality. At times the mercury was as low as 10 degrees below zero, but even then we had no difficulty in maintaining a temperature of 75 to 80 degrees throughout the house. If I could not obtain another, money would not purchase the Hercules plant I now have.
Yours very truly,
F. J. FRUCHEY.

No. 42B2008 Pipe Coil to be placed in the fire pot of 24-inch boilers to heat water for domestic use. Tapped for $\frac{3}{4}$ -inch iron pipe. When ordering give size of range boiler or storage tank to which it is to connect. Shipped from CHICAGO. Weight, about 11 pounds. Price.....\$1.75
No. 42B2009 Pipe Coil for 32-inch boiler, otherwise same as above. Price.....\$2.00



Hercules 24 and 32-Inch Fire Pot Steam Boilers

THE Hercules 24 and 32-Inch Steam Boilers are designed for heating large buildings, such as schools, halls, churches, apartment buildings, factories, etc., where it is necessary to heat the building on short notice. They are quick steamers, creating a pressure of 10 pounds in from 20 to 30 minutes after the fire is started, but are also easily kept under control by means of the check draft dampers, and will maintain a constant pressure with but little attention. They are made of cast iron and range in capacity from 1,000 to 3,250 square feet of radiation.

All boilers are carefully tested before leaving the factory and are furnished with a safety valve for 10 pounds pressure. This should be sufficient for all heating purposes, but if necessary the boilers may be operated at a pressure of not to exceed 20 pounds. As the sections are not assembled at the factory, the boilers can be handled easily and may be taken into a building through an ordinary doorway. A complete set of instructions, together with the necessary material for assembling, are included with each boiler, making it a simple matter to erect them.

The smaller illustration on this page shows the fire travel and internal construction of the 24 and 32-inch boilers. The smoke and gases enter the lower set of flues at the back and pass through them to the front of the boiler, where they are conducted to the upper flues, through which they travel to the chimney.

Each boiler is furnished with a complete set of steam trimmings and firing tools, consisting of a steam gauge, a water gauge, two try cocks, a safety valve set at

10 pounds, a diaphragm regulator with chains and pulleys for attaching to the draft and check dampers, and a poker, hoe and flue brush with handle. Pipe and pipe fittings are shown on pages 25 to 27.

Before selecting a boiler be sure to refer to "How Boiler Ratings Are Figured" on page 9.

No. 42B2028¹/₃ Hercules Sectional Steam Heating Boilers

Shipped From Factory in WESTERN NEW YORK.
24-INCH GRATE.

No.	Size of Fire Pot, Inches	Size of Smoke Pipe, Inches	Floor Space, Including Smoke Box, Inches	Tappings		Height Over All, Inches	Height to Water Line, Inches	Heating Capacity, Sq. Ft. of Radiation	Shipping Weight, About, Pounds	Price.
				Flow	Return					
246	24x36	10	40x46	2-3 in.	2-3 in.	59	46	1,000	2,230	Prices Quoted on Application
247	24x42	12	40x52	3-3 in.	3-3 in.	59	46	1,200	2,680	
248	24x48	12	40x58	3-3 in.	3-3 in.	59	46	1,400	3,135	

32-INCH GRATE.

No.	Size of Fire Pot, Inches	Size of Smoke Pipe, Inches	Floor Space, Including Smoke Box, Inches	Tappings		Height Over All, Inches	Height to Water Line, Inches	Heating Capacity, Sq. Ft. of Radiation	Shipping Weight, About, Pounds	Price.
				Flow	Return					
327	32x40 ¹ / ₂	14	50x57	2-4 in.	2-4 in.	66	52	1,800	4,365	Prices Quoted on Application
328	32x47	14	50x63	2-4 in.	2-4 in.	66	52	2,100	4,870	
329	32x53 ¹ / ₂	14	50x69	3-4 in.	3-4 in.	66	52	2,400	5,370	
3210	32x60	14	50x75	3-4 in.	3-4 in.	66	52	2,700	5,875	
3211	32x66 ¹ / ₂	16	50x81	3-4 in.	3-4 in.	66	52	3,000	6,455	
3212	32x74	16	50x87	4-4 in.	4-4 in.	66	52	3,250	7,010	

Internal view, showing construction and fire travel.

All of the above boilers have two holes through the back section so a No. 42B2008 or 42B2009 Coil may be placed in the fire pot for heating water for domestic purposes.



No. 42B2008 Pipe Coil to be placed in the fire pot of 24-inch boilers to heat water for domestic use. Tapped for ³/₄-inch iron pipe. When ordering give size of range boiler or storage tank to which it is to connect. Shipped from CHICAGO. Shipping weight, about 11 pounds. Price.....\$1.75

No. 42B2009 Pipe Coil for 32-inch boiler, otherwise same as above. Price.....\$2.00

Purchases His Second Hercules Steam Plant

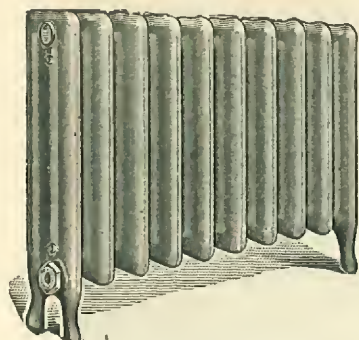
Greenfield, Mich.

Sears, Roebuck and Co., Chicago, Ill.

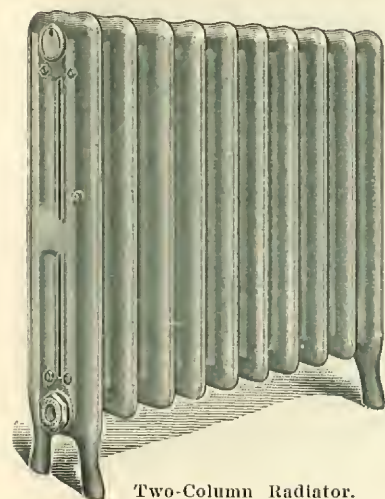
Gentlemen:—I was so well pleased with the Hercules Steam Heating Plant which I purchased from you that I also ordered one for my son. He is delighted with the results which his Hercules system gave him during the past Winter.

Yours very truly, FRED J. COON.

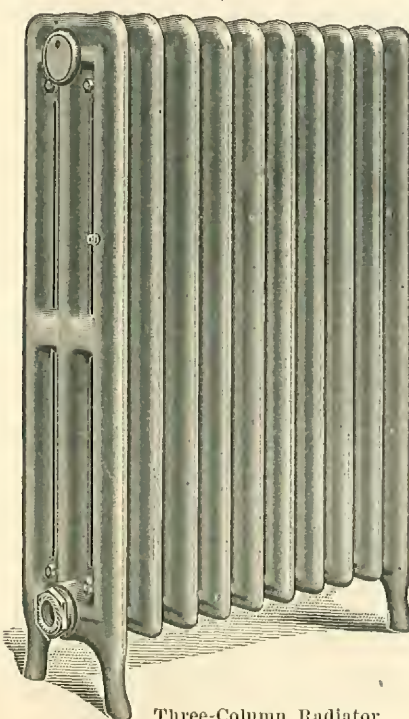
Comfort Plain Steam and Hot Water Radiators



Single Column Radiator.



Two-Column Radiator.



Three-Column Radiator.

MANUFACTURED from high quality material; properly constructed; graceful and artistic in design, and easily kept clean.

They are designed to hold about 1 pint of water for every foot of heating surface. This allows a wider space between the sections for the circulation of air and permits the radiators to do the most effective work in giving off heat, both by radiation and convection (by contact with the air). All radiator sections for both steam and hot water are put together with non-rusting push nipples.

We can furnish the radiators listed on the opposite page in any number of sections up to and including thirty-two, to meet the requirements of the rooms to be heated. Hot water radiators are tapped on both ends; steam radiators are tapped on one end only. All tappings are threaded right hand. When requested, we will furnish them tapped in any manner desired without extra charge. All radiators are tapped for $\frac{1}{8}$ -inch air valve unless otherwise specified. When ordering radiators be sure to state whether they are to be used for steam or hot water; also give the size of tapping desired, otherwise all radiators will be tapped as follows:

TAPPINGS

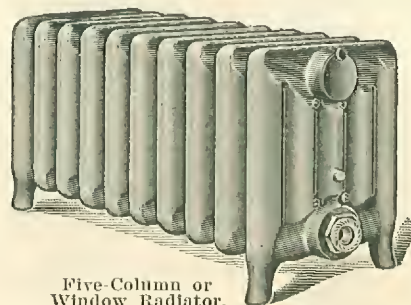
STEAM.

0 to 24 feet, 1 inch.
24 to 50 feet, $1\frac{1}{4}$ inches.
50 to 100 feet, $1\frac{1}{2}$ inches.
100 feet and over, 2 inches.

HOT WATER.

0 to 50 feet, 1 inch.
50 to 75 feet, $1\frac{1}{4}$ inches.
75 feet and over, $1\frac{1}{2}$ inches.

Five-column or window seat radiators are made especially to meet the demands of low radiators to be used in front of the windows where the distance from the bottom of the window to the floor is from 14 to 22 inches. They are also intended for use under window seats or wherever a low radiator is desired. They take up about the same space as a three-column radiator, excepting that they are 13 inches in width. Single column radiators are generally placed in halls, bathrooms, and other parts of the home where it is necessary to use as narrow a radiator as possible. Two and three-column radiators are considered standard and are used for all installations except where conditions make it necessary to install the single or five-column radiators described above. As all radiators are cast, the dimensions and shipping weights may vary somewhat from those shown on the opposite page.



Five-Column or Window Radiator.

Comfort Single Column Radiators

Generally used in hallways, passageways, etc., where the radiator must be as narrow as possible. They are also hung on the wall by means of brackets, where they are out of the way. PRICES ARE SUBJECT TO MARKET CHANGES. Shipped From Factory in WESTERN NEW YORK.

No. of Sections	Length in Inches, Figuring 2 1/2 Inches per Section	SQUARE FT. OF HEATING SURFACE	
		38-Inch Height, 3 Square Feet per Section	18-Inch Height, 1 1/2 Square Feet per Section
2	5	6	3
3	7 1/2	9	4 1/2
4	10	12	6
5	12 1/2	15	7 1/2
6	15	18	9
7	17 1/2	21	10 1/2
8	20	24	12
9	22 1/2	27	13 1/2
10	25	30	15
11	27 1/2	33	16 1/2
12	30	36	18
13	32 1/2	39	19 1/2
14	35	42	21
15	37 1/2	45	22 1/2
16	40	48	24
17	42 1/2	51	25 1/2
18	45	54	27
19	47 1/2	57	28 1/2
20	50	60	30

No. 42B2050 1/2 Steam. Price, per square foot..... 42c 59c
No. 42B2051 1/2 Hot water. Price, per square foot..... 43c 60c

Each section is 5 1/2 inches wide. Height from floor to center of opening, 5 inches. Allow 1/2 inch in the length of radiator for the bushing in end sections. Shipping weight of Radiators, about 6 3/4 pounds per square foot of radiation.

Comfort Two-Column Radiators

Used for heating residences, hall, churches and public buildings the same as the three-column radiators.

PRICES ARE SUBJECT TO MARKET CHANGES.

Shipped From Factory in WESTERN NEW YORK.

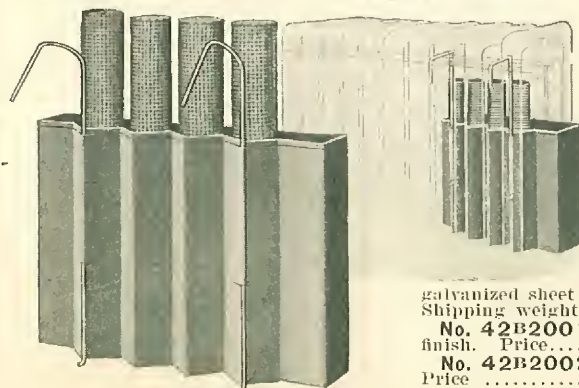
No. of Sections	Length in In., Figuring 2 1/2 Inches per Section	SQUARE FEET OF HEATING SURFACE		
		38-Inch Height, 4 Square Feet per Section	26-Inch Height, 2 2/3 Square Feet per Section	20-Inch Height, 2 Square Feet per Section
2	5	8	5 1/3	4
3	7 1/2	12	8	6
4	10	16	10 2/3	8
5	12 1/2	20	13 1/3	10
6	15	24	16	12
7	17 1/2	28	18 2/3	14
8	20	32	21 1/3	16
9	22 1/2	36	24	18
10	25	40	26 2/3	20
11	27 1/2	44	29 1/3	22
12	30	48	32	24
13	32 1/2	52	34 2/3	26
14	35	56	37 1/3	28
15	37 1/2	60	40	30
16	40	64	42 2/3	32
17	42 1/2	68	45 1/3	34
18	45	72	48	36
19	47 1/2	76	50 2/3	38
20	50	80	53 1/3	40

No. 42B2052 1/2 Steam. Price, per square foot..... 36c 43c 49c
No. 42B2053 1/2 Hot Water. Price, per square foot..... 37c 44c 50c

Each section is 8 3/4 inches wide. Height from floor to center of opening is 5 inches. Allow 1/2 inch in length of radiator for the bushing in end sections. Shipping weight of Radiators, about 6 3/4 pounds per square foot of radiation.

Radiators can be furnished in any number of sections up to and including thirty-two sections. Pipe and pipe fittings are shown on pages 25 to 27.

Moisten the Air in Your Home



Do you ever feel a burning or smarting sensation in your eyes, nose or throat when stepping from outdoors into a heated room? Ever notice how the furniture and woodwork crack and loosen at the joints? That is caused by the air being too dry. A Hercules Humidifier hung on the back of a radiator or placed above a hot air register will overcome this condition, as it keeps the air properly moistened. It consists of a tank (in which the water is placed) with four absorbent tubes, around and through which heated air passes, taking up the water as it rises. The tubes are made of absorbent fibers, bound with galvanized sheet metal finished with aluminum or gold bronze.

Shipping weight, about 8 pounds.

No. 42B2001 Hercules Humidifier, aluminum bronze finish. Price.....\$1.50
No. 42B2002 Hercules Humidifier, gold bronze finish. Price.....\$1.60

Comfort Three-Column Radiators

The standard radiator recognized as most suitable for all general heating purposes.

PRICES ARE SUBJECT TO MARKET CHANGES.

Shipped From Factory in WESTERN NEW YORK.

No. of Sections	Length in In., Figuring 2 1/2 Inches per Section	SQUARE FEET OF HEATING SURFACE		
		38-Inch Height, 5 Square Feet per Section	26-Inch Height, 3 1/3 Square Feet per Section	20-Inch Height, 2 1/2 Square Feet per Section
2	5	10	7 1/3	5 1/2
3	7 1/2	15	11 1/3	8 1/4
4	10	20	15	11
5	12 1/2	25	18 2/3	13 3/4
6	15	30	22 2/3	16 1/2
7	17 1/2	35	26 2/3	19 1/4
8	20	40	30	22
9	22 1/2	45	33 1/3	24 3/4
10	25	50	37 1/3	27 1/2
11	27 1/2	55	41 1/3	30 1/4
12	30	60	45	33
13	32 1/2	65	48 2/3	35 3/4
14	35	70	52 2/3	38 1/2
15	37 1/2	75	56 2/3	41 1/4
16	40	80	60	44
17	42 1/2	85	63 1/3	46 3/4
18	45	90	67 1/3	49 1/4
19	47 1/2	95	71 1/3	52 1/4
20	50	100	75	55

No. 42B2054 1/2 Steam. Price, per square foot..... 34c 41 1/2c 47 1/2c
No. 42B2055 1/2 Hot Water. Price, per square foot..... 35c 42 1/2c 48 1/2c

Each section is 9 1/2 inches wide. Height from floor to center of opening, 5 inches. Allow 1/2 inch in the length of radiator for the bushing in end sections. Shipping weight of Radiators, about 6 3/4 pounds per square foot of radiation.

Comfort Five-Column Radiators

Placed under windows and are also used under window seats; in fact are suitable for use in any room where it is necessary to use a low radiator.

PRICES ARE SUBJECT TO MARKET CHANGES.

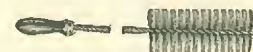
Shipped From Factory in WESTERN NEW YORK.

No. of Sections	Length in In., Figuring 3 Inches per Section	SQUARE FEET OF HEATING SURFACE		
		22-Inch Height, 6 Square Feet per Section	18-Inch Height, 5 Square Feet per Section	14-Inch Height, 4 Square Feet per Section
2	6	12	10	8
3	9	18	15	12
4	12	24	20	16
5	15	30	25	20
6	18	36	30	24
7	21	42	35	28
8	24	48	40	32
9	27	54	45	36
10	30	60	50	40
11	33	66	55	44
12	36	72	60	48
13	39	78	65	52
14	42	84	70	56
15	45	90	75	60
16	48	96	80	64
17	51	102	85	68
18	54	108	90	72
19	57	114	95	76
20	60	120	100	80

No. 42B2056 1/2 Steam. Price, per square foot..... 44c 51c 54c
No. 42B2057 1/2 Hot Water. Price, per square foot..... 44c 51c 54c

Each section is 13 1/4 inches wide. Height from floor to center of opening, 3 1/2 inches. Allow 1/2 inch in the length of radiator for the bushing in end sections. Shipping weight of Radiators, about 6 3/4 pounds per square foot of radiation.

Keep This Brush Handy in Your Home



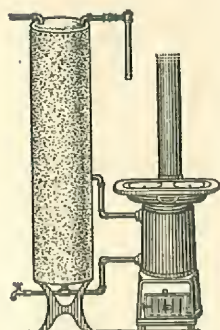
Saves time and labor. Easily removes the dust from corners and angles that cannot be reached with an ordinary brush or a cloth. Length, about 25 inches. Size of brush, about 2 1/2 x 6 inches. Shipping weight, about 1 lb.

No. 42B104 Radiator Brush. Price.....18c

Hercules Tank Heaters

(Hercules Is Our Own Trade Mark, Reg. in U. S. Patent Office.)

Furnish an Abundant Supply of Hot Water; Use a Small Amount of Fuel; Are Easy to Operate; Need Not Be Given Attention More Than Once in Twelve Hours.



Connected to Range Boiler.

A Hercules Tank Heater will furnish you an abundance of hot water during the Summer months when the heating system is not in use. It is also used for supplying hot water to flat and apartment buildings where a considerable amount of water is required, as it needs but little attention and uses a very small amount of fuel.

These heaters are made of high grade gray cast iron throughout, are carefully assembled and are guaranteed to be first quality in every respect. The water jacket or fire pot casting is hollow. Through this the water circulates, absorbing the heat from the fire on all sides and carrying it to the range boiler or storage tank, where the hot water is kept until it is drawn from the faucets. Each heater is carefully tested before being shipped and is suitable for connecting direct to your range boiler where the pressure does not exceed 40 pounds.

As no two castings are ever exactly the same in size or thickness, the dimensions and weights of Hercules Heaters may vary slightly from those given below. Pipe and pipe fittings are shown on pages 25 to 27.

Hercules Jr. Tank Heaters

No. 42B2015 $\frac{1}{3}$

These Hercules Jr. Tank Heaters are very compact, durable and efficient. They are especially designed for heating water for domestic use and will also be found very desirable for heating small greenhouses, henhouses, brooders, etc. Capacities range from 75 to 125 gallons, or from 50 to 100 square feet of radiation. The cylinder or fire pot is contracted at the top to prevent loss of heat.

PRICES ARE SUBJECT TO MARKET CHANGES.

Shipped From Factory in WESTERN PENNSYLVANIA.

No.	Diameter of Fire Pot	Depth of Fire Pot	Tappings	Hot Water per Hour, Gallons	Square Feet of Radiation Supplied	Height Over All	Smoke Pipe	Shipping Weight, Lbs.	Price
110	10 in.	10 in.	1 $\frac{1}{4}$ in.	75	50	22 in.	6 in.	185	\$14.60
112	10 in.	12 in.	1 $\frac{1}{4}$ in.	100	75	25 in.	6 in.	190	14.75
115	10 in.	14 in.	1 $\frac{1}{4}$ in.	125	100	28 in.	6 in.	210	16.50



Hercules Tank Heaters With Front Fuel Door

No. 42B2016 $\frac{1}{3}$

These heaters are similar to the No. 42B2015 $\frac{1}{3}$, with the exception that they are larger and the fuel is fed into the heater through the fire door at the front near the top, instead of through the top opening. We can furnish this heater in the following sizes only:

PRICES ARE SUBJECT TO MARKET CHANGES.

Shipped From Factory in WESTERN PENNSYLVANIA.



No.	Diameter of Fire Pot	Depth of Fire Pot	Tappings	Hot Water per Hour, Gallons	Square Feet of Radiation Supplied	Height Over All	Smoke Pipe	Shipping Weight, Lbs.	Price
211	18 in.	11 in.	1 $\frac{1}{2}$ in.	150	120	31 in.	6 in.	295	\$18.75
215	18 in.	15 in.	2 in.	200	160	34 in.	6 in.	365	22.00
219	18 in.	19 in.	2 in.	250	190	37 in.	6 in.	415	24.25

Hercules Jr. Combined Tank and Laundry Heaters

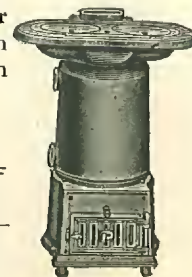
No. 42B2020 $\frac{1}{3}$

Designed for laundry use and as an inexpensive method of heating water for domestic purposes. Fire pot construction same as No. 42B2015 $\frac{1}{3}$. Notice the ample space on top for heating irons or boiling water. Suitable for heating from 30 to 200-gallon range boilers. Can be used in connection with water fronts in stoves or independently, and can be located in kitchen or basement.

PRICES ARE SUBJECT TO MARKET CHANGES.

Shipped From Factory in WESTERN PENNSYLVANIA.

No.	Diameter of Fire Pot	Depth of Fire Pot	Tappings	Hot Water per Hour, Gallons	Square Feet of Radiation Supplied	Height Over All	Smoke Pipe	Shipping Weight, Lbs.	Price
101	10 in.	10 in.	1 $\frac{1}{4}$ in.	75	50	27 in.	6 in.	210	\$15.75
121	10 in.	12 in.	1 $\frac{1}{4}$ in.	100	75	29 in.	6 in.	220	16.00
123	10 in.	14 in.	1 $\frac{1}{4}$ in.	125	100	32 in.	6 in.	235	17.60



Hercules Hot Water Circulator

(Hercules Is Our Own Trade Mark, Registered in U. S. Patent Office.)

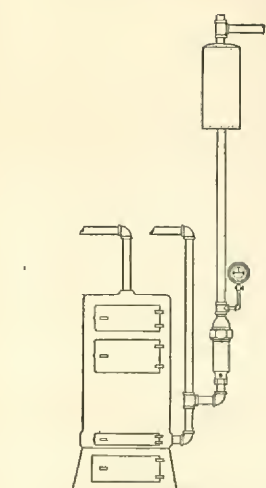
Gives you the combined advantages of a hot water and steam heating plant. Changes sluggish circulating hot water plants into quick heating systems; increases their capacity 25 per cent. Raises the boiling point of the water from 212 to 240 degrees.

The particular advantages of a hot water heating plant are an even, steady warmth throughout the entire home, a greater range or difference in the heating temperatures and the ease of operation. The special advantages of a steam heating plant are its ability to heat a building in less time, and its reserve capacity, which may be made use of when necessary.

Combines the Advantages of Hot Water and Steam Heat

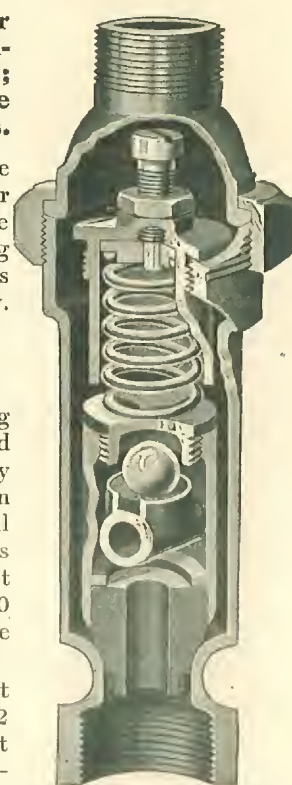
A Hercules Circulator attached to your hot water heating plant will give you all the advantages of both a steam and hot water heating system. It will produce an even, steady warmth throughout your home by quickening the circulation of the water in the pipes, the boiler and the radiators; it will enable you to keep a low fire during mild weather, which is one of the most important features in a hot water plant, and it will allow you to increase the temperature of the water to 240 degrees when the cold Winter weather requires more heat, the same as though you were using a steam heating system.

Method of connecting when the expansion pipe is run from the boiler to the attic and connected with the expansion tank. In this method the circulator can be placed in the basement next to the boiler, where there is no danger of freezing.



same as though you were using a steam heating system.

The boiling temperature of water differs according to the pressure under which it is placed. For instance, water in an open vessel will boil at a temperature of 212 degrees, where the pressure of the air is normal. When this pressure is increased it requires a higher temperature to make the water boil. In an open or what is commonly called a gravity hot water system the water boils at 212 degrees, but when a Hercules Circulator is added the system is placed under a pressure of 10 pounds and



the water will not boil

Increases Capacity of Your Plant 25 Per Cent

This extra 28 degrees makes it possible to store a great deal more heat in the same amount of water, actual tests showing that it increases the capacity of the plant from 20 to 25 per cent.

We have selected the Hercules Circulator as the most reliable pressure valve, after carefully testing the various devices that have been invented to create this 10-pound pressure. It is so designed that there is no possible chance of the working parts becoming clogged or sticking, and under ordinary circumstances it will give perfect results for practically a lifetime, without any attention whatsoever. It is connected to the pipe leading from the plant to the expansion tank, as shown in the two smaller illustrations on this page. When the water in the system is heated it expands and the surplus water cannot pass to the expansion tank without first raising the valve in the circulator. (See large illustration.)

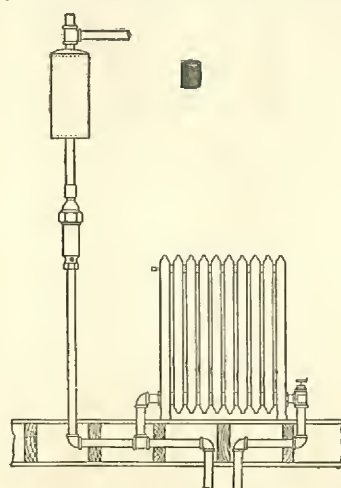
Working Parts Will Not Corrode or Rust

The valve is made of vulcanized rubber and rests upon a brass seat; it is held firmly in position by a phosphor bronze spring which prevents the water from lifting the valve until a pressure of 10 pounds is reached. When the water in the system contracts, that in the expansion tank flows back into the plant by merely raising the little brass ball check, shown in the center of the large valve. The ball check rests upon a vulcanized rubber seat which brings brass and rubber in contact, the same as in the large valve, and overcomes any possible chance of the two surfaces sticking together. The body and different parts of the Hercules Circulator are made of brass, phosphor bronze or vulcanized rubber, all of which are practically rustproof. Each circulator is guaranteed to prove entirely satisfactory and to be in perfect working order when you receive it. Shipped from our CHICAGO store. Shipping weight, about 4 pounds.

No. 42B2160 Hercules Hot Water Circulator.

Price..... **\$9.50**

Pipe and pipe fittings are shown on pages 25 to 27.



Attaching the circulator to the return of one of the branches or risers leading to a radiator. This method is generally used where the circulator and expansion tank can be placed in a closet or room on the second floor.

Pipe Fitters' Tools at One-Half Price

**Special Reduced Prices Good Only When Tools Are Ordered With
a Hercules Hot Water or Steam Heating Plant**

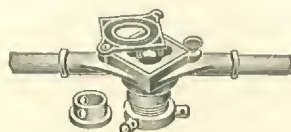
You may order with your Hercules Hot Water or Steam Heating Plant any one of these pipe fitters' high grade outfits at the special reduced prices shown on this and the opposite page. We offer you these outfits at one-half our regular prices so that you may obtain a complete set of first quality pipe fitting tools with which to install your plant at a price that is no more than you would pay if we were to do as some other firms have done—loan you an outfit of second hand tools, ask you to pay the freight charges when returning them, make a charge for rental, and request you to make a deposit equal to the value of the tools when new, so that we might deduct a sufficient amount to cover the value of any tool you accidentally damaged. By our method you own the tools outright. You will find many uses for them.

The well known fact that we handle only new first quality material and our reputation for fair and square dealing will not allow us to carry a stock of second hand tools to loan to our customers for installing their heating plants and then charge them a rental for their use.

Every tool shown on this and the next page is the same as listed in our big General Catalog and our Special Modern Plumbing Goods Catalog. All are guaranteed to be first quality new tools, just as received from the manufacturer.

After your heating plant is installed, these tools will be found very useful, as considerable pipe fitting work of one kind or another is necessary in the modern home.

Outfit No. 42B525



Consists of Stock and Dies, Pipe Vise, Pipe Cutter and Pipe Wrench.

No. 42B6003 Stock and Dies with dies and guides to thread $\frac{3}{4}$, 1, $1\frac{1}{4}$ and $1\frac{1}{2}$ -inch pipe. Price..... \$6.09

No. 42B5972 Pipe Vise to hold $\frac{1}{4}$ to 3-inch pipe.

Price \$3.15

No. 42B6149 Stillson Pipe Wrench, 24-inch, to hold $\frac{1}{4}$ to $2\frac{1}{2}$ -inch pipe. Price..... \$2.60

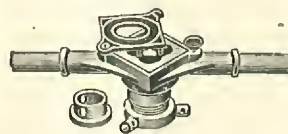
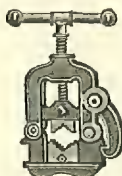
No. 42B5987 Three-Wheel Pipe Cutter, to cut $\frac{1}{2}$ to 2-inch pipe. Price..... \$2.25

Regular price of above tools..... \$14.09

No. 42B525 Special reduced price of complete Pipe Fitters' Outfit described above, when ordered with a Hercules Hot Water or Steam Heating Plant..... **\$7.05**

Shipping weight, about 50 pounds.

Outfit No. 42B526



Consists of Stock and Dies, Pipe Vise, Pipe Cutter, two Pipe Wrenches and Burring Reamer.

No. 42B6003 Stock and Dies with dies and guides, to thread $\frac{3}{4}$, 1, $1\frac{1}{4}$ and $1\frac{1}{2}$ -inch pipe. Price..... \$6.09

No. 42B5972 Pipe Vise to hold $\frac{1}{4}$ to 3-inch pipe.

Price \$3.15

No. 42B5987 Three-Wheel Pipe Cutter to cut $\frac{1}{2}$ to 2-inch pipe. Price..... \$2.25

No. 42B6149 Stillson Pipe Wrench, 14-inch, to hold $\frac{1}{4}$ to $1\frac{1}{2}$ -inch pipe. Price..... \$1.26

No. 42B6149 Stillson Pipe Wrench, 24-inch, to hold $\frac{1}{4}$ to $2\frac{1}{2}$ -inch pipe. Price..... \$2.60

No. 42B6064 Burring Reamer to ream $\frac{1}{8}$ to $1\frac{1}{4}$ -inch pipe. Price..... \$1.00

Regular price of above tools..... \$16.35

No. 42B526 Special reduced price of complete Pipe Fitters' Outfit described above, when ordered with a Hercules Hot Water or Steam Heating Plant..... **\$8.18**

Shipping weight, about 53 pounds.

Pipe Fitters' Tools at One-Half Price

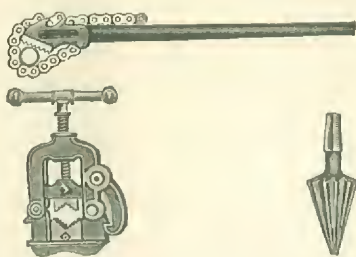
**Special Reduced Prices, Good Only When Tools Are Ordered With
a Hercules Hot Water or Steam Heating Plant**

You may order with your Hercules Hot Water or Steam Heating Plant any one of these pipe fitters' high grade outfits at the special reduced prices shown on this and the opposite page. We offer you these outfits at one-half our regular prices so that you may obtain a complete set of first quality pipe fitting tools with which to install your plant at a price that is no more than you would pay if we were to do as some other firms have done—loan you an outfit of second hand tools, ask you to pay the freight charges when returning them, make a charge for rental, and request you to make a deposit equal to the value of the tools when new, so that we might deduct a sufficient amount to cover the value of any tool you accidentally damaged. By our method you own the tools outright. You will find many uses for them.

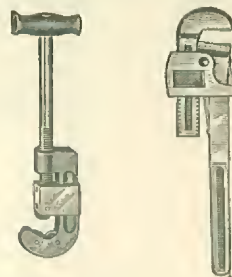
With each Hercules Hot Water or Steam Heating Plant you order you may include any one of the Pipe Fitters' Outfits listed on this and the opposite page at our special reduced prices, which are exactly one-half our regular prices.

Remember, we cannot furnish more than one outfit with each Hercules Heating Plant.

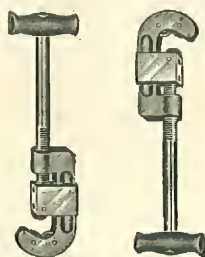
When you send us your order for the Hercules plant just state the number of the outfit you want, allowing the special reduced price, and we will include the tools with the material that is shipped from our Chicago store.



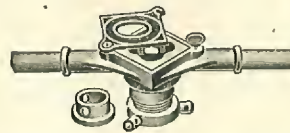
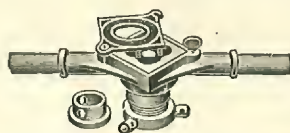
Outfit No. 42B527



- Consists of Stock and Dies, Pipe Vise, Pipe Cutter, Chain Wrench, Stillson Wrench and Burring Reamer.
- | | |
|---|--|
| No. 42B6003 Stock and Dies with dies and guides, to thread $\frac{3}{4}$, 1, $1\frac{1}{4}$ and $1\frac{1}{2}$ -inch pipe. | No. 42B6149 Stillson Pipe Wrench, 18-inch, to hold $\frac{1}{4}$ to 2-inch pipe. |
| Price\$6.09 | Price.....\$1.80 |
| No. 42B5972 Pipe Vise to hold $\frac{1}{4}$ to 3-inch pipe. | No. 42B6167 Brock's Chain Wrench to hold $\frac{1}{4}$ to 3-inch pipe. |
| Price\$3.15 | Price.....\$2.40 |
| No. 42B5987 Three-Wheel Pipe Cutter to cut $\frac{1}{2}$ to 2-inch pipe. | No. 42B6064 Burring Reamer to ream $\frac{1}{8}$ to $1\frac{1}{4}$ -inch pipe. |
| Price.....\$2.25 | Price.....\$1.00 |
| No. 42B527 Special reduced price of complete Pipe Fitters' Outfit described above, when ordered with a Hercules Hot Water or Steam Heating Plant..... | Regular price of above tools.....\$16.69 |
| | \$8.35 |
- Shipping weight, about 56 pounds.



Outfit No. 42B528

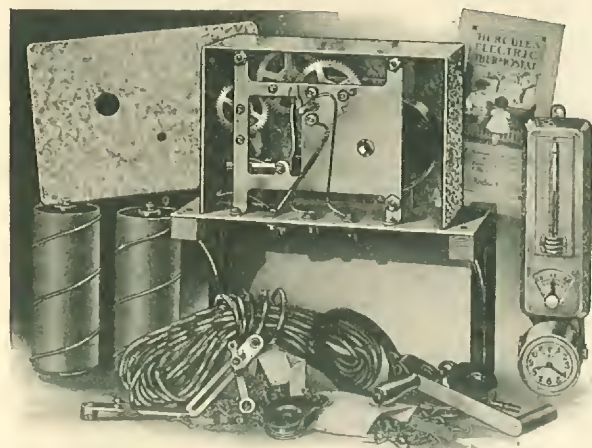


- Consists of two sets Stock and Dies, Pipe Vise, two Pipe Cutters, Chain Wrench, two Stillson Wrenches and two Burring Reamers.
- | | |
|---|--|
| No. 42B6001 Stock and Dies to thread $\frac{1}{4}$, $\frac{3}{8}$, $\frac{1}{2}$, $\frac{3}{4}$ and 1-inch pipe. | No. 42B6167 Brock's Chain Wrench to hold $\frac{1}{4}$ to 3-inch pipe. |
| Price.....\$5.35 | Price.....\$2.40 |
| No. 42B6004 Stock and Dies to thread $1\frac{1}{4}$, $1\frac{1}{2}$ and 2-inch pipe. | No. 42B6149 Stillson Pipe Wrench, 10-inch, to hold $\frac{1}{8}$ to 1-inch pipe. |
| Price.....\$7.15 | Price.....90c |
| No. 42B5972 Pipe Vise to hold $\frac{1}{4}$ to 3-inch pipe. | No. 42B6149 Stillson Pipe Wrench, 18-inch, to hold $\frac{1}{4}$ to 2-inch pipe. |
| Price\$3.15 | Price.....\$1.80 |
| No. 42B5987 Three-Wheel Pipe Cutter to cut $\frac{1}{8}$ to 1-inch pipe. | No. 42B6064 Burring Reamer to ream $\frac{1}{8}$ to $1\frac{1}{4}$ -inch pipe. |
| Price.....\$1.70 | Price.....\$1.00 |
| No. 42B5987 Three-Wheel Pipe Cutter to cut $\frac{1}{2}$ to 2-inch pipe. | No. 42B6065 Burring Reamer to ream 1 to 2-inch pipe. |
| Price.....\$2.25 | Price.....\$1.90 |
| No. 42B528 Special reduced price of complete Pipe Fitters' Outfit described above, when ordered with a Hercules Hot Water or Steam Heating Plant..... | Regular price of above tools.....\$27.60 |
| | \$13.80 |
- Shipping weight, about 75 pounds.

Regulate Your Fire and Your Heat With a Hercules Thermostat Outfit

Automatically Regulates Warm Air, Hot Water or Steam Heating Plants

Maintains an Even Temperature in the House at All Times; Saves Coal Bills. Clock Attachment Automatically Raises the Temperature to 70 Degrees at Any Desired Time.



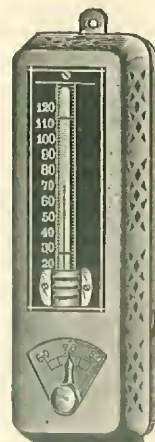
When the Hercules Regulator is attached to your heating plant the temperature in your building will not vary more than 2 degrees. There will be an even, steady degree of warmth throughout the house at all times. Any temperature from 60 to 80 degrees can be had by simply turning the indicator to the point desired, and the temperature will not vary more than 1 or 2 degrees from the point at which the indicator is set.

This regulator will save its cost every year in coal bills, for the simple reason that it will keep a steady, slow fire at all times. With the clock attachment you can set the indicator, when retiring, to say, 60 degrees, and then set the clock for any predetermined time, say 5:00 o'clock in the morning. The temperature will then be kept at 60 degrees until 5:00 o'clock in the morning, when the clock will move the indicator to 70 degrees and within half an hour the temperature throughout your entire building will be raised to 70 degrees.

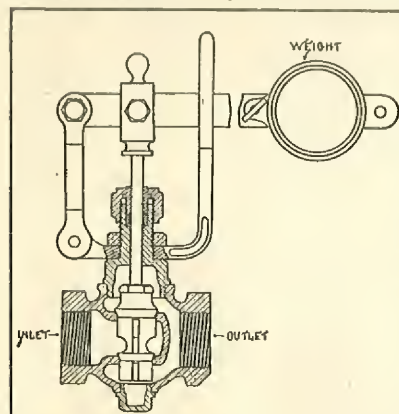
We show at the bottom of this page the method of connecting the Hercules Thermostat Regulator to a warm air furnace, a hot water heating boiler and a steam boiler. It can also be attached to a gas valve when gas is used for fuel, or to a steam valve leading from a central heating plant, so that the temperature in the different rooms throughout your building can be kept at any degree, between

60 and 80, that may be desired. Gas and steam regulator valves are listed also on this page. This thermostat is a great fuel saver, as it controls the check and draft dampers throughout the day and night, and keeps a slow, steady fire at all times. It will not allow the fire to burn briskly for a short time and then die down until the rooms are cooled off, but instead keeps shifting the draft and check dampers so that the temperature throughout the building remains steady.

The Hercules Electric Thermostat Regulator is the result of years of experience in the manufacturing of regulating devices. Special pains have been taken in designing the thermostat motor. The framework is of pressed brass and all pinions turn in bronze bearings, insuring a long lived and easy running regulator. We guarantee the Hercules to do all that we claim; also that anyone who follows the instructions sent with the regulator can install it without difficulty. Shipped from our CHICAGO store. Shipping weight, about 27 pounds.



Without Clock Attachment.



Hercules Simplex Gas and Steam Regulator Valves.

Connected to thermostat for controlling steam inlet from central heating plant, or gas inlet when gas is used for fuel. As valves are furnished with balanced discs, they open and close with exactly the same pressure.

Shipped from factory in EASTERN PENNSYLVANIA.

No. 42B2068 1/4 Hercules Simplex Valves.

1/4 inch, brass.	Price, each.....	\$ 5.15
3/8 inch, brass.	Price, each.....	5.20
1 inch, brass.	Price, each.....	5.60
1 1/4 inches, brass.	Price, each.....	6.80
1 1/2 inches, brass.	Price, each.....	8.40
2 inches, brass.	Price, each.....	14.00
2 1/2 inches, brass.	Price, each.....	19.60
3 inches, brass.	Price, each.....	29.90
3 1/2 inches, iron body.	Price, each.....	37.35
4 inches, iron body.	Price, each.....	46.70

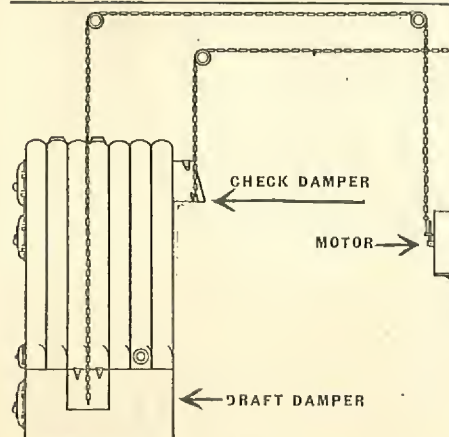
Be sure to state whether steam or gas valves are wanted.

The Hercules Electric Thermostat Regulator No. 42B2065 1/4 consists of a thermostat (also known as a mechanical thermometer), a motor and two dry batteries, complete with copper wire cable, pulleys, chain, etc., shown in illustration, all ready to attach to your heating system.

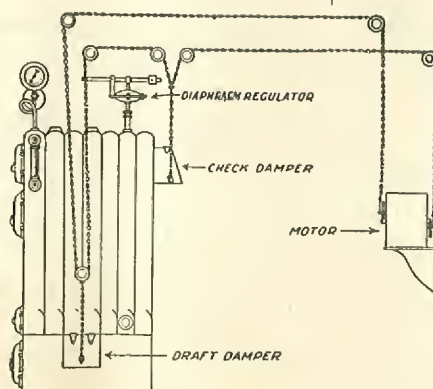
Outfit No. 42B2066 1/4 is the same as No. 42B2065 1/4, with the addition of the clock attachment.

No. 42B2065 1/4 Without clock attachment. Price\$18.70

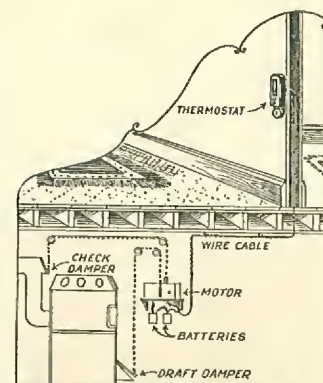
No. 42B2066 1/4 Complete with clock attachment. Price\$23.70



Attached to Hot Water Heating Boiler.

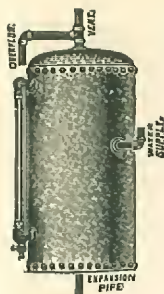


Attached to Steam Heating Boiler.



Attached to Warm Air Furnace.

Galvanized Expansion Tanks.



No. 42B2070½ Expansion Tanks are used only in hot water systems and are for the purpose of keeping all of the radiators full of water, as no circulation can take place in a radiator only partially filled. The tanks are usually connected with the return pipe from one of the radiators on the top floor, generally the bathroom, as they can then be placed in one corner up near the ceiling, where the gauge is in plain view. Expansion tanks are made of heavy steel and riveted in the side seam. The heads are riveted and flanged inward. After the tanks are finished they are galvanized to prevent rust. Prices quoted include water gauges complete with cocks and guards, but do not include the inlet and outlet fittings shown in the illustration. Gauge glass tappings are ½ inch, all others 1 inch, pipe sizes.

Capacity, About, Gallons	Size, Inches	Square Feet of Radiation	Shipping Weight, Abt., Lbs.	Price, Including Gauge
8	10x20	300 to 400	31	\$ 6.00
10	12x20	400 to 500	40	6.40
15	12x30	500 to 600	48	7.05
20	14x30	600 to 700	60	9.50
26	16x30	700 to 900	74	10.55
32	16x36	1,000 to 1,300	88	11.25
42	16x48	1,300 and up	100	11.95

Hercules Expansion Tank Brackets.

No. 42B2071½ Fastened to the wall like an ordinary bracket. Holds the expansion tank rigid and keeps it up out of the way. This bracket is especially suitable for holding expansion tanks in bathrooms and closets, as it makes a strong, compact, neat and inexpensive support. Each bracket is fitted complete with lag screws for fastening to the wall. Made in four sizes for expansion tanks 10, 12, 14 and 16 inches in diameter. Shipping weight, about 6, 8, 9 and 10 pounds.

10-inch bracket. For 8-gallon expansion tanks. Price...75c
12-inch bracket. For 10 and 15-gallon expansion tanks. Price...80c
14-inch bracket. For 20-gallon expansion tanks. Price...95c
16-inch bracket. For 26, 32 and 42-gallon expansion tanks. Price...\$1.10

Altitude Gauge.



No. 42B2075 For showing the height of water in a heating plant. The figures indicate the height of water in feet. The red hand shows the height at which the water should be kept, while any changing of the movable hand indicates the change in level of the water. Gauge may be connected direct to boiler or to either the vertical flow or return main, preferably near front of boiler. Its use makes frequent visits to expansion tank to note water level unnecessary. Altitude gauges cannot be used in connection with a circulator or any other device which places an additional pressure upon the heating system. Threaded for ¼-inch pipe. Shipping wt., about 4 pounds.

Price...\$1.90

Adjustable Nickel Plated Flange for Floor or Ceiling.



No. 42B2147 These plates are adjustable and can be placed on pipes after they are in position,

by catching the hook over the shoulder on one side of the plate, to keep the opposite side in line, and pressing them together until they lock in the socket.

Size, ¾ inch. Shipping wt., about 8 ounces. Price...10c
Size, 1 inch. Shipping wt., about 8 ounces. Price...12c
Size, 1¼ inches. Shipping weight, about 8 ounces. Price...13c
Size, 1½ inches. Shipping weight, about 8 ounces. Price...15½c
Size, 2 inches. Shipping weight, about 12 ounces. Price...16½c

Hercules Clinker Tongs.

No. 42B2003

Picks the clinkers, stones or slate out of the fire pot without disturbing the fire. A very convenient article for the fireplace, kitchen range, parlor heater or heating furnace. Shipping weight, about 3½ pounds.

Price...85c



Flue Brush for Oval or Round Surfaces.

No. 42B6191 Four inches in diameter with two flat sides. Has steel bristles. Fitted for ¼-inch pipe connection. Shipping weight, about 1¼ pounds.

Price...45c

Flue Brush for Flat or Square Surfaces.

No. 42B6196 Size, 4½x6 inches. Tapped for ¼-inch pipe connection. Shipping weight, about 1 pound.

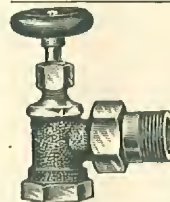
Price...55c

Steam Radiator Valves.

No. 42B2090 Jenkins' Disc Steam Radiator Valves. Full nickel plated. Made of solid brass, finely finished, with ground joint union. One of the best steam radiator valves made.



Size	Shipping Wt., About	Price
¾ inch	1½ pounds	\$1.25
1 inch	2½ pounds	1.56
1¼ inches	3½ pounds	2.10
1½ inches	5 pounds	2.65
2 inches	8 pounds	4.30



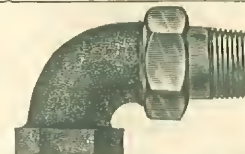
Hot Water Radiator Valves.

No. 42B2085 Quick Opening Hot Water Radiator Valves. Made of solid brass, nickel plated, with union. One-half turn opens valve to full capacity. Arrow on top plate of handle indicates position of valve. It is open when arrow points toward radiator; closed when it points the opposite way. When closed the small hole or by-pass in the disc insures continuous circulation, thereby preventing freezing.

Size	Shipping weight, about	Price
¾ inch	2 pounds	\$0.94
1 inch	2½ pounds	1.20
1¼ inches	3½ pounds	1.66
1½ inches	4 pounds	2.35
2 inches	6 pounds	3.58

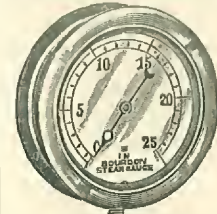
Union Elbows for Hot Water Radiators.

No. 42B2140 Nickel Plated Brass Union Elbows with ground joint for hot water radiators. These are placed on the return ends of hot water radiators.



Size	Shipping weight, about	Price
¾ inch	1½ pounds	\$0.66
1 inch	2 pounds	.83
1¼ inches	2½ pounds	1.05
1½ inches	3 pounds	1.32
2 inches	5 pounds	2.30

Low Pressure Gauge.



No. 42B2076 This gauge is made for house heating steam boilers. The spring is made of a solid drawn tube of the single spring type. Gauge is so constructed as to prevent corrosion of the moving parts, which especially adapts it for use in cellars, basements, etc. The figures and markings on the dial are large and plain, making it easy to read the gauge. A siphon should always be used in connecting pressure gauges to boilers. Has ½-inch dial; iron case with brass ring. Threaded for ¼-inch pipe. Shipping weight, about 4 pounds.

Price with brass cock...\$1.80

Compression Air Valve With Key.

No. 42B2131 Compression Air Valve with lock and shield, made of solid brass, finely nickel plated. For hot water systems. Automatic air valves cannot be used on hot water plants. We recommend the loose key valves, as the key may be removed after valves are turned on or off, thus preventing anyone from meddling with the valves. Shipping weight, about 2 ounces.

Size, ¾ inch. Price, each...10c
Keys extra. Price, each...50



Automatic Air Valve.

No. 42B2136 Automatic Nickel Plated Brass Air Valve for steam plants only. Good quality. Substantially made. Automatically opens to allow air to escape, but closes when steam or water enters the valve chamber. Tapped for ¼-inch pipe. Shipping weight, each, about 4 ounces.

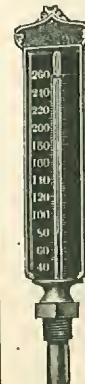
Price, each...40c



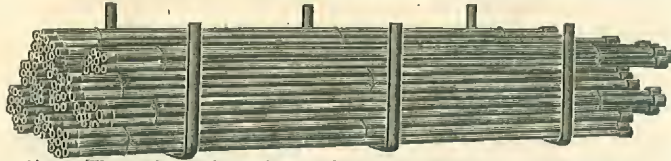
Hot Water Thermometer.

No. 42B2080 For hot water systems. Registers up to 260 degrees Fahrenheit. Should be attached direct to a ½-inch tapping in top of boiler or to one of the flow mains rising from the flow connection, so that the mercury chamber is in direct contact with the circulation of the water. Shipping weight, about 1½ lbs.

Price...73c



Standard Wrought Steam, Gas and Water Pipe



For carrying steam, gas or water, our wrought pipe will give perfect satisfaction, as it is made of good quality evenly rolled stock, carefully welded and free from imperfections.

We carry at our Chicago store 1/4-inch to 6-inch pipe in stock lengths as it comes from the mill, both in black and galvanized. Prices on larger sizes will be quoted on application.

The prices given for each of the different sizes of pipe are for regular stock lengths. This does not mean exact 20-foot lengths, but in lengths as they come from the mill. One coupling is furnished with each stock length. When you specify exact lengths we charge for the threads on both ends, as per price list shown, and no coupling is included.

We do not furnish overhauled or so called rejuvenated used pipe, as we handle new first quality pipe only as it comes from the mill.

Be sure to allow for cost of cutting threads when pipe is ordered cut and threaded to exact lengths.

PRICES ON PIPE ARE SUBJECT TO MARKET CHANGES.

No. 42B5710 1/4 Black Iron Pipe.					No. 42B5711 1/4 Galvanized Iron Pipe.				
Inside Diameter, Inches	Pounds per Foot, About	Black, per Foot	Galvanized, per Foot	Extra Threads, per Cut	Inside Diameter, Inches	Pounds per Foot, About	Black, per Foot	Galvanized, per Foot	Extra Threads, per Cut
1/4	3/4	3 3/4c		2 1/2c	2	3 3/4	\$0.22	\$0.28	5c
1/2	1 1/2	4c	6c	2 1/2c	2 1/2	5 3/4	.35	.45	5c
3/4	2 1/4	4c	6c	2 1/2c	3	7 1/4	.45	.59	7c
1	3 1/4	5 1/4c	7c	3 1/2c	3 1/2	9	.59	.74	10c
1 1/4	4 3/4	7c	9c	4 1/2c	4	10 3/4	.69	.86	12c
1 1/2	5 3/4	8 1/2c	10 1/2c	5 1/2c	4 1/2	12 1/4	.81	1.01	13c
		16c	21c	5c	5	14 1/4	1.17	1.53	27c
					6	18 1/4	1.22		35c

Wrought Iron Couplings.

No. 42B5720 Black.				
Pipe, in.	1/4	3/4	1 1/4	
Black, each....	3c	4c	5c	7 1/4c
Pipe, in.	1 1/2	2	2 1/2	3 3/4
Black, each....	9c	12c	17c	26c 35c 45c
No. 42B5721 Galvanized.				
Pipe, in.	1/4	3/4	1 1/4	
Galv'd, each....	4 1/2c	5c	6c	7 1/4c 11c 15c
Pipe, in.	1 1/2	2	2 1/2	3 3/4
Galv'd, each....	20c	24c	32c	47c 61c 84c

Graphite Pipe Cement.

No. 42B6203 Used in radiator joints, gas and water pipes, to make tight joints and keep threads from rusting.
Price, 1-pound can....\$0.26 1/2
Price, 5-pound can.... 1.27
We list White Lead in our big General Catalog.

Malleable iron pipe fittings, valves and cocks are shown in our large General and Special Plumbing Catalogs.

Seroco Aluminum Radiator Enamel.

No. 30B2122 Aluminum Enamel or Silver Paint for radiators or other steam or hot water heated surfaces. The brightest silver finish may be obtained with this material. The powder and liquid come separately in a neat compact can and must be mixed when ready to use. Ready mixed aluminum enamel dries out dull and sandy, while our Seroco Aluminum Enamel dries with a finish almost like nickel plate. We furnish a brush without extra charge with each can.
Price, 1/2-pint can.....\$0.48
Shipping wt., about 1 1/4 lbs.
Price, 1-pint can......80
Shipping wt., about 2 1/2 lbs.
Price, 1-quart can.....1.32
Shipping wt., about 3 1/4 lbs.

Seroco Gold Radiator Enamel.

No. 30B2123 Gold Radiator Enamel for radiators and other steam or hot water heated surfaces. Dries very hard with a smooth finish and will not discolor. The powder and liquid come separately in a neat, compact can and must be mixed when ready to use. A satisfactory ready mixed gold enamel cannot be made. Most gold paints dry out dull and sandy, while our Seroco Gold Enamel produces a bright smooth finish.
Price, 1/2-pint can.....\$0.54
Shipping wt., about 1 1/4 lbs.
Price, 1-pint can......92
Shipping wt., about 2 1/2 lbs.
Price, 1-quart can.....1.55
Shipping wt., about 2 1/2 lbs.

Adjustable Pipe Hangers.

No. 42B2150 Adjustable Pipe Hangers.		
Size, 3/4 in.	Shipping wt., abt.	3/4 lb... 9c
Size, 1 in.	Shipping wt., abt.	1 lb... 9c
Size, 1 1/4 in.	Shipping wt., abt.	1 1/4 lb... 10c
Size, 1 1/2 in.	Shipping wt., abt.	1 1/2 lb... 11c
Size, 2 in.	Shipping wt., abt.	2 lb... 13c
Size, 2 1/2 in.	Shipping wt., abt.	2 1/2 lb... 15c
Size, 3 in.	Shipping wt., abt.	3 lb... 17c
Size, 3 1/2 in.	Shipping wt., abt.	3 1/2 lb... 19c
Size, 4 in.	Shipping wt., abt.	4 lb... 22c

Nipples.

State Length Wanted.

No. 42B5763 Price, Short.		
Pipe, inches	1/4	2c
	1/2	2 1/2c
	3/4	2 1/2c
	1	2 1/2c
	1 1/4	3 1/2c
	1 1/2	4c
	2	4 1/2c
	2 1/2	5 1/2c
	3	7c
	3 1/2	14 1/2c
	4	19c
	4 1/2	33c
	5	36c

No. 42B5765 Black, Long.		
Pipe, inches	1/4	2 1/2c
	1/2	2 1/2c
	3/4	2 1/2c
	1	2 1/2c
	1 1/4	3 1/2c
	1 1/2	4c
	2	4 1/2c
	2 1/2	5 1/2c
	3	7c
	3 1/2	14 1/2c
	4	19c
	4 1/2	33c
	5	36c

Flange Unions.

No. 42B5782 These unions are to be used in making connections for the supply and return pipes at heating boilers. They admit of the piping being easily and quickly connected or disconnected to make repairs.		
Size, 1/2 in.	Shpg. wt., about	2 1/4 lbs.
Size, 3/4 in.	Shpg. wt., about	2 3/4 lbs.
Size, 1 in.	Shpg. wt., about	3 lbs.
Size, 1 1/4 in.	Shpg. wt., about	3 1/4 lbs.
Size, 1 1/2 in.	Shpg. wt., about	4 1/4 lbs.
Size, 2 in.	Shpg. wt., about	6 lbs.
Size, 2 1/2 in.	Shpg. wt., about	9 1/4 lbs.
Size, 3 in.	Shpg. wt., about	11 1/2 lbs.
Size, 3 1/2 in.	Shpg. wt., about	15 1/2 lbs.
Size, 4 in.	Shpg. wt., about	16 lbs.

No. 42B5783 Red Rubber Gaskets for above unions.					
Size, Shipping Wt., Abt. Price			Size, Shipping Wt., Abt. Price		
$\frac{1}{2}$ in.	6 oz.	1 $\frac{3}{4}$ c	2 in.	8 oz.	3 $\frac{1}{2}$ c
$\frac{3}{4}$ in.	6 oz.	1 $\frac{3}{4}$ c	2 $\frac{1}{2}$ in.	8 oz.	4 $\frac{1}{2}$ c
1 in.	6 oz.	2 $\frac{1}{4}$ c	3 in.	8 oz.	5 $\frac{1}{2}$ c
1 $\frac{1}{4}$ in.	6 oz.	2 $\frac{1}{4}$ c	3 $\frac{1}{2}$ in.	8 oz.	6 $\frac{3}{4}$ c
1 $\frac{1}{2}$ in.	6 oz.	2 $\frac{3}{4}$ c	4 in.	8 oz.	9c

Cast Iron Steam or Hot Water Fittings.

No. 42B2095 Cast Iron Steam or Hot Water 90-Degree Elbows.		
Size, 3/4 in.	Shpg. wt., abt.	1 lb... 5 1/2c
Size, 1 in.	Shpg. wt., abt.	1 1/4 lbs. 6 1/2c
Size, 1 1/4 in.	Shpg. wt., abt.	1 1/2 lbs. 11c
Size, 1 1/2 in.	Shpg. wt., abt.	2 1/4 lbs. 13c
Size, 2 in.	Shpg. wt., abt.	3 1/2 lbs. 19c
Size, 2 1/2 in.	Shpg. wt., abt.	5 1/4 lbs. 33c
Size, 3 in.	Shpg. wt., abt.	7 1/2 lbs. 50c
Size, 3 1/2 in.	Shpg. wt., abt.	10 1/4 lbs. 70c
Size, 4 in.	Shpg. wt., abt.	12 3/4 lbs. 79c

No. 42B2110 Cast Iron Steam or Hot Water 45-Degree Elbows.		
Size, 3/4 in.	Shpg. wt., abt.	3/4 lb... 6 1/2c
Size, 1 in.	Shpg. wt., abt.	1 lb... 7 1/2c
Size, 1 1/4 in.	Shpg. wt., abt.	1 1/4 lbs. 13c
Size, 1 1/2 in.	Shpg. wt., abt.	2 lbs. 15c
Size, 2 in.	Shpg. wt., abt.	3 lbs. 22c
Size, 2 1/2 in.	Shpg. wt., abt.	5 lbs. 40c
Size, 3 in.	Shpg. wt., abt.	6 1/2 lbs. 59c
Size, 3 1/2 in.	Shpg. wt., abt.	9 1/2 lbs. 81c
Size, 4 in.	Shpg. wt., abt.	12 1/4 lbs. 95c

No. 42B2115 Cast Iron Steam or Hot Water Reducing Elbows. Sizes given are large end.		
Size, 3/4 in.	Shpg. wt., about	1 lb... 6c
Size, 1 in.	Shpg. wt., about	1 1/4 lbs. 9c
Size, 1 1/4 in.	Shpg. wt., about	1 1/2 lbs. 12c
Size, 1 1/2 in.	Shpg. wt., about	2 1/4 lbs. 15c
Size, 2 in.	Shpg. wt., about	3 1/2 lbs. 21c
Size, 2 1/2 in.	Shpg. wt., about	5 1/4 lbs. 40c
Size, 3 in.	Shpg. wt., about	7 1/2 lbs. 56c
Size, 3 1/2 in.	Shpg. wt., about	10 1/4 lbs. 79c
Size, 4 in.	Shpg. wt., about	12 3/4 lbs. 92c

No. 42B2100 Cast Iron Steam or Hot Water Tees.		
Size, 3/4 in.	Shpg. wt., abt.	1 lb... \$0.07
Size, 1 in.	Shpg. wt., abt.	1 1/4 lbs. .10
Size, 1 1/4 in.	Shpg. wt., abt.	2 1/4 lbs. .15
Size, 1 1/2 in.	Shpg. wt., abt.	3 1/4 lbs. .20
Size, 2 in.	Shpg. wt., abt.	4 1/2 lbs. .26
Size, 2 1/2 in.	Shpg. wt., abt.	7 lbs. .48
Size, 3 in.	Shpg. wt., abt.	10 1/4 lbs. .78
Size, 3 1/2 in.	Shpg. wt., abt.	13 1/2 lbs. .98
Size, 4 in.	Shpg. wt., abt.	17 1/2 lbs. 1.13

No. 42B2105 Cast Iron Steam or Hot Water Reducing Tees. Give size of both ends of run first and then branch opening. Example, 1 1/4 x 1/2.		
Size, 3/4 in.	Shpg. wt., abt.	1 lb... \$0.09
Size, 1 in.	Shpg. wt., abt.	1 1/4 lbs. .12
Size, 1 1/4 in.	Shpg. wt., abt.	2 1/4 lbs. .18
Size, 1 1/2 in.	Shpg. wt., abt.	3 1/4 lbs. .22
Size, 2 in.	Shpg. wt., abt.	4 1/2 lbs. .31
Size, 2 1/2 in.	Shpg. wt., abt.	7 lbs. .55
Size, 3 in.	Shpg. wt., abt.	10 1/4 lbs. .81
Size, 3 1/2 in.	Shpg. wt., abt.	13 1/2 lbs. 1.13
Size, 4 in.	Shpg. wt., abt.	17 1/2 lbs. 1.31

For prices on Malleable Fittings see our big General Catalog or Special Plumbing Goods Catalog.

Air Cell Asbestos Covering for Steam or Hot Water Pipes.



leaving small air spaces between the layers of asbestos the efficiency of the covering is increased twofold. It is very light, thereby reducing freight charges, and is not as liable to become broken while in transit as the molded covering. Sizes of covering shown below represent pipe sizes for which it is to be used. Comes in 3-foot lengths only. All sizes are 1 inch thick, 4-ply. Shipped from factory in NORTHEASTERN ILLINOIS. Owing to manner in which covering is packed shipping weights vary with amount of covering ordered.

For Pipe Size	Price, per Foot	For Pipe Size	Price, per Foot
1/2 inch	12 ¹ / ₂ c	2 inches	20c
3/4 inch	13c	2 1/2 inches	21c
1 inch	15c	3 inches	24c
1 1/4 inches	16c	3 1/2 inches	27c
1 1/2 inches	18c	4 inches	31c

Above covering can be placed around pipe already installed.

Wool Felt Covering for Hot or Cold Water Pipes.

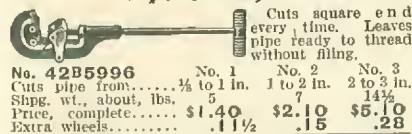
No. 42B2171¹/₂ Generally used for covering cold water pipes to prevent them from freezing, as it holds the heat in the water better than asbestos. Can also be used for covering hot water pipes, but should not be put around steam pipes or near a fire, as it is inflammable. Made of layers of felt with an asbestos lining on the inside where it fits around the pipe, and a canvas covering to hold the two sections firmly in place. Very easily put on. Cut lengthwise through the center. Comes in 3-foot lengths only, 1 inch thick. Sizes of covering shown below represent pipe sizes for which covering is to be used. Shipped from factory in NORTHEASTERN ILLINOIS. Owing to manner in which covering is packed, shipping weights vary with amount of covering ordered.



For Pipe Size	Price, per Foot	For Pipe Size	Price, per Foot
1/2 inch	12 ¹ / ₂ c	2 inches	20c
3/4 inch	13c	2 1/2 inches	21c
1 inch	15c	3 inches	24c
1 1/4 inches	16c	3 1/2 inches	27c
1 1/2 inches	18c	4 inches	31c

Above covering can be placed around pipe already installed.

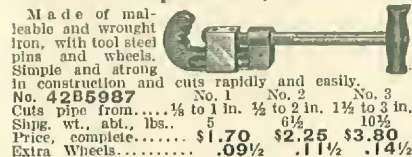
\$1.40 Saunders Pattern Improved Pipe Cutter, Size No. 1.



Cuts square end every time. Leaves pipe ready to thread without filing.

No. 1	No. 2	No. 3
Cuts pipe from 1/4 to 1 in.	1 to 2 in.	2 to 3 in.
Shpg. wt., about, lbs.	5	7
Price, complete	\$1.40	\$2.10
Extra wheels	.11 1/2	.15

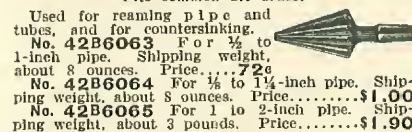
\$1.70 For a Barnes Three-Wheel Pipe Cutter, Size No. 1.



Made of malleable and wrought iron, with tool steel pins and wheels. Simple and strong in construction and cuts rapidly and easily.

No. 1	No. 2	No. 3
Cuts pipe from 1/4 to 1 in.	1/2 to 2 in.	1 1/2 to 3 in.
Shpg. wt., abt., lbs.	5	6 1/2
Price, complete	\$1.70	\$2.25
Extra Wheels	.09 1/2	.11 1/2

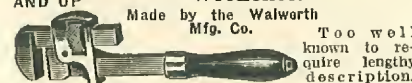
Tool Steel Lightning Burring Reamer.



Used for reaming pipe and tubes, and for countersinking.

No. 1	No. 2	No. 3
Cuts pipe from 1/4 to 1 in.	1/2 to 2 in.	1 1/2 to 3 in.
Shpg. wt., abt., lbs.	5	6 1/2
Price, complete	\$1.70	\$2.25
Extra Wheels	.09 1/2	.11 1/2

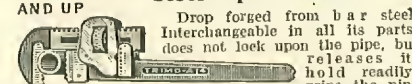
72c Genuine Stillson Pipe Wrenches.



Made of good quality imported steel, finely finished. Guaranteed to give satisfactory service. 6 and 8-inch wrenches fitted with wood handle; 10, 14, 18, 24 and 36-inch with steel handle.

No. 1	No. 2	No. 3
Length, open, in.	6	8
Takes pipe from	1/2 to 1 1/2	1 to 1 1/2
Shpg. wt., abt., lbs.	1 1/2	2 1/2
Price	72c	80c

72c For a Genuine Trimo Tool Steel Pipe Wrench.



Drop forged from bar steel. Interchangeable in all its parts, does not lock upon the pipe, but releases its hold readily; grips the pipe firmly without lost motion; does not crush pipe or slip. Movable jaw and nut are made with a round top and bottom thread, guaranteed not to strip or burr. An inserted jaw is placed in handle, which can be renewed at little expense when dull or worn.

No. 1	No. 2	No. 3
Length, open, in.	6	8
Takes pipe from	1/2 to 1 1/2	1 to 1 1/2
Shpg. wt., abt., lbs.	1 1/2	2 1/2
Price	72c	80c

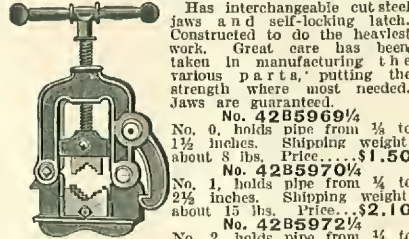
\$3.90 Malleable Iron Pipe Stock With Solid Steel Dies.



Nos. 2 and 3 furnished with leader screw as shown in illustration. We do not furnish taps with these sets. See our big General Catalog for taps.

No. 1	No. 2	No. 3
Pipe size of dies	1/4, 3/8, 1/2, 3/4, 1	1/2, 3/4, 1, 1 1/4
Dimension of dies	2 1/2 x 1 1/2	3 x 1 1/2
Shpg. weight, about, lbs.	6 1/2	14
Complete with dies	\$3.90	\$5.35
Extra dies, each	.76	.88
Extra guides, each	.13	.15

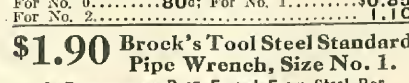
\$2.10 Open Hinge Malleable Iron Pipe Vise, Size No. 1.



Has interchangeable cut steel jaws and self-locking latch. Constructed to do the heaviest work. Great care has been taken in manufacturing the various parts, putting the strength where most needed. Jaws are guaranteed.

No. 1	No. 2	No. 3
Length, open, in.	6	8
Takes pipe from	1/2 to 1 1/2	1 to 1 1/2
Shpg. wt., abt., lbs.	1 1/2	2 1/2
Price	2.10	2.10

\$1.90 Brock's Tool Steel Standard Pipe Wrench, Size No. 1.



A first class wrench at a reasonable price. Forged out of bar steel, with removable jaw. Teeth are milled and tempered. Chain is made of special steel. By means of the two books for chain this wrench will take more intermediate sizes of pipe than any other made. Guaranteed against defects and to be as good a wrench as you have ever used or money returned. Shipping weight, about 5, 9 and 24 lbs.

No. 1	No. 2	No. 3
Length, open, in.	6	8
Takes pipe from	1/2 to 1 1/2	1 to 1 1/2
Shpg. wt., abt., lbs.	1 1/2	2 1/2
Price	1.90	2.40

Molded Asbestos Elbow and Tee Covering.



No. 42B2170¹/₂ Used in connection with our Air Cell Asbestos Covering for elbows and tees.

Pipe Inches	Elbow Covering	Tee Covering
1/2	15c	18c
3/4	15c	18c
1	15c	18c
1 1/4	16c	19c
1 1/2	16c	19c
2	18c	22c
2 1/2	21c	24c
3	24c	28c
3 1/2	28c	30c
4	30c	38c

Asbestos Cement.

No. 42B2172¹/₂ For covering iron or any other surface to prevent loss of heat. Composed of asbestos fiber and a cementing compound. Covering your boiler with asbestos cement will prevent loss of heat and effect a great saving in your coal bills. Boilers are generally covered to a thickness of 1 1/2 inches. One hundred pounds of cement will cover boiler surface about 1,600 square inches to a thickness of 1 inch. Comes in bags of 100 pounds, to be mixed with water and applied same as mortar.

Price, per bag.....\$1.75
Price, per pound, in less than full bags......03 1/2

Water Gauges.

No. 42B6402 With brass body, cocks, iron wheels, glass tube and two brass guards, as illustrated. Shipping weight, about 3 pounds.

Sizes	Rough	Fin-ished
Pipe, 3/4, Glass		
5/8x10. Price...	\$1.20	\$1.50
Pipe, 1/2, Glass		
5/8x12. Price.....	1.40	1.55

Genuine Scotch Glass Tubes for Water Gauges.

No. 42B6406 High quality Scotch glass, carefully made. Lengths desired other than shown below will be charged for at prices of next longer tubes of same diameter. Less than six glasses not sold. Shipping wt., six glasses, about 2 1/2 lbs.

Length, for 6 per In.	Price, per Dozen	Price, per Dozen	Price, per Dozen	Price, per Dozen
10	46c	\$0.84	50c	\$0.92
11	50c	.92	55c	1.00
12	56c	1.02	62c	1.12
13	60c	1.10	66c	1.24
14	66c	1.20	72c	1.34
15	70c	1.28	77c	1.46

WEDONOTSELLLESS THAN SIX GLASS TUBES.

What Our Customers Think of Hercules Hot Water and Steam Heating Systems

Trade Mark Registered in U. S. Patent Office.

Those who have bought Hercules Heating Systems seem always to be glad to testify as to their efficiency. We receive many letters from day to day, but we have space to print only a few of them on these two pages, and give the names and addresses of other users to whom you may refer if you desire. If you write to any of these customers we suggest that you enclose a stamp for reply.

AS GOOD AS ANY PLANT THAT CAN BE HAD AND MADE GOOD SAVING.

6804 W. Twelfth St., Oak Park, Ill.
Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I purchased a hot water heating plant of you on September 24th and have erected and thoroughly tested the same. The amount of radiation in this plant is 1,050 square feet and the boiler is your No. 7-16 sectional water boiler. It took me about five days to erect the plant and cost me about \$40.00 to have it put in, which covered the five days' pay of one steamfitter and a helper. I only find it necessary to look after the boiler twice a day, and find that it keeps fire over night well, as the average temperature of our house during the night is between 58 and 65 degrees. I am very well pleased with the plant in all its details. It has given good satisfaction so far and the cost is much less than any other bids that we received. I am pleased to recommend it to any customer who wishes to put in one of your Hercules plants, both as to its good qualities and the money that he can save by purchasing a plant of this kind. We hope that you may receive many orders for your steam and hot water heating plants, as they certainly are as good as any that can be gotten.

Yours very truly, JOHN J. KELLY.

COAL BILL NOW \$3.00 PER MONTH.

3820 Avenue D, Birmingham, Ala.
Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—The hot water heating plant I purchased from you about a year ago is all that could be desired in a heating system. It gives as good results as any heating system that I know of and is so easy to handle. I use slack soft coal worth about \$1.50 per ton delivered at our house and use only about two tons a month. If I would use better coal it would drive us from the house. The Hercules system is certainly O. K.

Yours truly, J. E. ALLEN.

SAVES \$500.00.

406 Fillmore St., Amarillo, Texas.
Sears Roebuck and Co., Chicago, Ill.

Gentlemen:—I bought a heating plant from you in September, 1909. I installed the plant myself with the help of two men. I put it up according to blue prints sent by you and found that I had no trouble whatever. I have a rooming house containing nineteen rooms, besides three bathrooms and three large halls. The plant is giving perfect satisfaction. It cost me a total of \$540.00. I saved above home bids exactly \$500.00. During the month of December the cost of fuel amounted to an average of 55 cents per day. With this fuel I heated the entire building. Wishing you the best of success, I am,

Yours truly, S. N. GREEN.

HEATS A TEN-ROOM HOUSE AND SAVED \$210.00 ON HIS PLANT.

419 S. Fourth St., De Kalb, Ill.
Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—The hot water plant we bought of you last season has given perfect satisfaction; heated our ten-room home, without crowding the furnace, on the coldest day of last winter, with every room open. We have seven rooms with radiators and three bedrooms without any. Your plant, including freight, cost me \$265.00, and the best I could do in a nearby city was \$475.00 for a plant I consider inferior to yours.

Very truly, E. P. STOCKLEY.

HOLDS FIRE WELL OVER NIGHT.

1001 Fort Dearborn Bldg., Chicago, Ill.
Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—The hot water heating plant that I purchased from you works very nicely. I would not do without it for any money. I use hard nut coal for fuel, and find that the boiler does not require much attention. I find that the boiler holds fire well over night; rooms are at a comfortable degree in the morning.

HANS WESTLEY.

MARION W. BLAIR,
Rooms 521-523 Board of Trade
Bldg.,
Indianapolis, Ind.

WM. ELLIS,
119 Hess Ave.,
Evansville, Ind.

LOUIS HERBST,
966 Germania Ave.,
Indianapolis, Ind.

DR. M. B. KEEGAN,
422 W. La Salle Ave.,
South Bend, Ind.

PHILIP KUNTZ,
3212 Dinnen Ave.,
Fort Wayne, Ind.

G. E. MITCHELL,
42 Salisbury St.,
West Lafayette, Ind.

WILLIAM M. MOORE,
R. F. D. No. 3,
Selma, Ind.

S. W. NELSON,
1020 Spencer Ave.,
Marion, Ind.

R. L. NESSEL,
434 W. Sibley St.,
Hammond, Ind.

PARRISH-ALFORD FENCE &
MACHINE CO.,
Knightsdown, Ind.

A. A. RONYEAUX,
326 Cleveland Ave.,
Whiting, Ind.

GEO. J. SCHALL, JR.,
1515 Salem St.,
La Fayette, Ind.

E. C. H. STEBOLT,
1602 E. Oak St.,
New Albany, Ind.

S. J. SUMMER,
256 W. Main St.,
Valparaiso, Ind.

FRANK G. WALL,
1105 Beacon St.,
E. Chicago, Ind.

W. C. WILLIAMSON,
Box 181,
Fremont, Ind.

G. W. COLEMAN,
Webster City, Iowa.

C. J. DAHRESS,
Dixon, Iowa.

F. ELLIS,
Mt. Vernon, Iowa.

JAMES D. HOPKINS,
539 Eleventh Ave.,
Clinton, Iowa

J. A. JOHNSON,
3207 Wright St.,
Des Moines, Iowa.

OSCAR KOBS,
Bettendorf, Iowa.

JACOB RENEKER,
Birmingham, Iowa.

JOHN JOHNSON,
510 Otis Ave.,
Joliet, Ill.

FRED KARCH,
110 17th Ave.,
Melrose Park, Ill.

ALBERT NELSON,
419 S. Fourth St.,
De Kalb, Ill.

NORTH SHORE AUTO &
TRANSPORTATION CO.,
Highland Park, Ill.

JANS PEARSON,
1113 Richard St.,
Joliet, Ill.

J. H. PRICE,
809 S. Twelfth Ave.,
Maywood, Ill.

WILLIAM PUGH,
1219 E. Main St.,
Streator, Ill.

J. E. SENSMITH, Antioch, Ill.
or
1001 Fort Dearborn Bldg.,
Chicago, Ill.

DAVID SHREFFLEH,
1211 Smith St.,
Peoria, Ill.

FRANK SWAHN,
Crest, Colo.

W. H. TENSFIELD,
Box 64,
Camanche, Iowa.

JEROME WEIBEL,
810 Thirteenth St.,
Sioux City, Iowa.

J. A. LOVETTE,
Mullinville, Kans.

C. A. MARSH,
Auburn, Maine.

PERLEY D. WELLS,
Milo, Maine.

ALFRED P. EDGE,
Darlington, Maryland.

JOSEPH D. HIGNEY,
Bark St.,
Swansea, Mass.

WM. E. LANCASHIRE,
17 Taylor St.,
Fall River, Mass.

JOHN D. LOVERING,
47½ High St.,
Lawrence, Mass.

CHAS. S. OSGOOD,
Bernardston, Mass.

ISAAC PELTIS,
Mill River, Mass.

CYRUS P. PICKARD,
Acton, Mass.

H. B. PRATT,
750 Lexington St.,
Waltham, Mass.

SAMUEL E. WILD,
91 Chatham St.,
Worcester, Mass.

A. M. ADAMS,
1307 Stockbridge Ave.,
Kalamazoo, Mich.

H. AUBIN,
349 E. Nelson St.,
Lake Linden, Mich.

JAMES AVERY,
Belding, Mich.

A. H. BABCOCK,
Spring Lake, Mich.

JOHN BARRACK,
Williamston, Mich.

FRANK BROWN,
East Jordan, Mich.

O. BUTTON,
R. F. D. No. 1,
Ypsilanti, Mich.

F. W. CHARTER,
428 E. Nelson St.,
Cadillac, Mich.

GEO. A. COYKENDALL,
Mattawan, Mich.

G. J. EPERLE,
Box 41,
Comstock, Mich.

J. FALK,
1312 Fulton Ave.,
Grand Haven, Mich.

JOHN GEARY,
1332 N. Bond St.,
Saginaw, Mich.

A. AUGUSTINE,
44 N. Main St.,
Middletown, Conn.

WILLIS L. BEAN,
30 Van Zant St.,
East Norwalk, Conn.

LOUIS A. BRADBURY,
Kensington, Conn.

ELLA BURR,
9 Hayes St.,
Bridgeport, Conn.

OLAF B. GOULLIN,
109 Goodwin St.,
Bristol, Conn.

MRS. WALLACE H. MILLER,
Bristol, Conn.

GEORGE C. SMITH,
Stevens St.,
Norwalk, Conn.

G. SUNDMAN,
140 Bond St.,
Hartford, Conn.

W. A. WILLIAMS,
Georgetown, Conn.

GEORGE H. EVANS,
Frankford, Del.

JOE LUDEWIG,
30th and Brandywine Sta.,
Washington, D. C.

C. E. GOODNOE,
1019 N. Chestnut St.,
or R. F. D. No. 5,
Lansing, Mich.

ALEXANDER GRANT,
254 Smith Ave.,
Detroit, Mich.

HOLMS MACHINE MFG. CO.,
Sparta, Mich.

JULIUS J. JEWETT,
252 Palmer Ave.,
Grand Rapids, Mich.

A. E. KIENBAUM,
R. F. D. No. 1,
Sandusky, Mich.

JOHN KLOPP,
1201 Military Ave.,
Detroit, Mich.

C. W. LIGHTHALL,
Chelsea, Mich.

CLIFF MORRIS,
Seneca, Mich.

GRANT PUTNAM,
Novi, Mich.

MRS. LUCY RICHARDS,
676 Cherry St.,
Grand Rapids, Mich.

WALTER TAYLOR,
346 High St., West,
Detroit, Mich.

ARTHUR N. TAYLOR,
2729 Stone St.,
Pt. Huron, Mich.

B. F. TEALL,
Milan, Mich.

W. J. THOMPSON,
617 McGraw Ave.,
Detroit, Mich.

FLOYD A. WILEY,
Seneca, Mich.

REINHOLD WOJAHN,
1250 Franklin Ave.,
Grand Haven, Mich.

J. B. CAJACOB,
Onamia, Minn.

C. W. EASTMAN,
Brainerd, Minn.

G. F. MITCHELL,
229 North Seventh St.,
Brainerd, Minn.

OTTO F. NIELSEN,
R. F. D. No. 1,
Byron, Minn.

NICK SIEBENALER,
R. F. D. No. 1,
Hampton, Minn.

ARNDT CAMPEN,
Monticello, Mo.

P. McASEY,
2217 S. Thirteenth St.,
St. Joseph, Mo.

F. H. NIERMAN,
Jefferson City, Mo.

PHILIP CADLE,
R. F. D. No. 2,
Rossville, Ill.

NELSON CARTE,
Elgin, Ill.

HENRY DESSEL,
208 West Reynolds St.,
Springfield, Ill.

W. J. DOBBS,
1138 So. Clinton Ave.,
Oak Park, Ill.

WALTER ENCK,
511 Second Ave.,
Aurora, Ill.

A. J. ENDTER,
709 Forty-Second St.,
Rock Island, Ill.

PETER FALK,
551 Sixth Ave.,
Aurora, Ill.

HUGO GIECK,
196 Fifth St.,
Aurora, Ill.

JAMES HIBBERT,
5452 Cortez St.,
Austin P. O., Chicago, Ill.

JOHN JAROS,
1215 Wesley Ave.,
Oak Park, Ill.

What Our Customers Think of Hercules Hot Water and Steam Heating Systems

Trade Mark Registered in U. S. Patent Office.

There is nothing so convincing when considering the purchase of a heating system as to see the system in actual use or to learn what the user thinks of it. We will be very glad to have you write or call on any of the people whose names and addresses are given on these two pages, or any other of our customers. If you write any of these people we suggest that you enclose stamp for reply.

WORKS LIKE A CHARM. HE AND HIS SON INSTALLED IT THEMSELVES.

Cynthiana, Ky.
Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I purchased a hot water heating plant from your firm and although I had never had any previous experience in putting in heating plants, by the use of the blue prints and instructions furnished by you, my son and myself installed this plant in fourteen days. Ours is a large two-story eleven-room house, and when we fired up the plant it worked like a charm, every radiator heated up promptly and warmed the whole house splendidly. Every plumber in Cynthiana said we could not do it and if we did get the pipes in we would never get the radiators on, and if we should happen to get them on, the plant would never work and would not heat the house and would be full of leaks. I have not a single leak in the whole system and we were not over three hours putting on every radiator in the house. However, since I got my plant working one of these plumbers has been out and looked it over and told me it was all right and would give plenty of heat. I simply would not do without it for any consideration. If you have any customers in this vicinity who are figuring on installing a heating plant, kindly send them to me and I will be pleased to show them my system.

DARWIN E. FISHER.

SAVED \$100.00 AND HEATER IS A WINNER.

Stafford, N. Y.
Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—The hot water plant that you sold me is certainly a winner. I find that all rooms are heated to 70 degrees when the thermometer on the boiler registers 100 degrees. I don't think that the temperature of the water has ever been higher than 160 degrees. We are very much pleased with the heater. We saved about \$100.00 by purchasing a Hercules Plant.

ALONZO DIEFENDORF.

A COMFORTABLE HOUSE IN A COLD WINTER.

Altoona, Penn.
Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I wish to advise that the heating plant that I purchased from you last fall is giving entire satisfaction. I had no trouble in setting it up, and will say that anyone following your instructions can easily erect the Hercules plant. All the material necessary for this plant came in first class condition, and I am positive that I saved at least \$130.00 by installing the Hercules system. We have had a very severe winter and, in fact, a good one to test this plant, and although it was exceedingly cold, our house was comfortable at all times, even though we had but a very small fire.

Yours very truly,
J. D. EMERICK.

SEVENTY DEGREES IN THE HOUSE WITH OUTSIDE TEMPERATURE AT FORTY BELOW ZERO.

Franklin, Penn.
Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—The Hercules Hot Water Heating Plant I bought from you last Fall is just grand. I would not sell it for any price if I could not get another. I put it up myself and found it easy work, following your blue print. Last Winter has been the hardest in this section for a great many years. During January it was never much above zero and sometimes as low as forty below. Our home, however, was kept at 70 degrees all of the time and the thermometer on the boiler was never over 190 degrees. I used natural gas for fuel and our fuel bill was but very little more for heating the whole house than when heating but part of it, the year before, by stoves. There are a great many good features about a Hercules plant, but the best of all is that you saved me considerable money.

Yours truly,
H. EDW. JONSON.

JOE SANDERS,
3427 S. Jefferson Ave.,
St. Louis, Mo.

OSCAR BRACKETT,
Isamay, Mont.

J. G. NELSON,
De Borgia, Mont.

L. ATKINSON,
326 Morton Ave.,
Benson, Neb.

CHAS. A. GOSSMAN,
Platte Center, Neb.

E. J. FLOOD,
Newman Grove, Neb.

J. M. MOHR,
R. F. D. No. 2, Box 35,
Laurel, Neb.

ALEX. N. LANG,
Manchester, N. H.

GEORGE WILLIAM MOLLOY,
17 Pierce St.,
Nashua, N. H.

JOHN J. BAHWIG,
Closter, N. J.

ERNEST BRAUER,
121 Essex St.,
Bloomfield, N. J.

JOHN G. BRAIN,
805 Pine St.,
Trenton, N. J.

W. S. BROWN,
Box 21,
Riverdale, N. J.

A. S. COUNCIL,
136 Knickerbocker Ave.,
Paterson, N. J.

JOSEPH F. DILKS,
207 Hampton St.,
Bridgetown, N. J.

G. HOFFMAN,
Bergenfield, N. J.

GEO. B. HURLEY,
Trenton, N. J.

JAMES MATTHEWS,
228 Ridge Ave.,
Lakewood, N. J.

DANIEL REILLY,
118 So. 12th St.,
Newark, N. J.

ELLWOOD Z. RUDOLPH,
Quinton, N. J.

B. S. RUTHERFORD,
228 E. Twenty-First St.,
Paterson, N. J.

WM. TURNER,
594 Avenue E.,
Bayonne, N. J.

J. R. ADAMS,
Box 5,
Whitesboro, N. Y.

E. D. ALLEN,
120 New York St.,
Lockport, N. Y.

GOTTFRIED BEHNKE,
1300 Willow Ave.,
Niagara Falls, N. Y.

H. J. BENNETT,
Red Creek, N. Y.

GEORGE BRUNDAGE,
Salisbury Mills, N. Y.

PETER J. BYRNE,
245 Ridge St.,
Glens Falls, N. Y.

E. V. CARYER,
48 Springfield St.,
Schenectady, N. Y.

CLELAND BROTHERS,
533 Summit Ave.,
Schenectady, N. Y.

EMMET ELLIS,
5 Dean St.,
Rochester, N. Y.

DE FOREST FREDENBURG,
809 E. 110th St.,
New York City, N. Y.

E. R. FRANCISCO,
8 Delevan St.,
Auburn, N. Y.

T. S. HARVEY,
216 Seymour St.,
Auburn, N. Y.

JOHN HENDERSON,
400 E. 10th St.,
Brooklyn, N. Y.

ELI N. HOWARDS,
Canandaigua, N. Y.

O. LUNDBLAD,
Washington Ave.,
Hempstead, N. Y.

JOHN MANTON,
221 Waverly St.,
Buffalo, N. Y.

CHAS. J. MCCARTHY,
9 Sherman St.,
New Hartford, N. Y.

MRS. JOHN MITCHELL,
634 Fourteenth St.,
Niagara Falls, N. Y.

LEE J. PALMER,
Hague, N. Y.

THEODORE PURDY,
Yorktown Heights, N. Y.

ROBERT J. PURDY,
168 Dufront St.,
Buffalo, N. Y.

WM. C. REICHERT,
906 Duane Ave.,
Schenectady, N. Y.

FRANK SANDER,
88 Hale Ave.,
Brooklyn, N. Y.

WM. C. STEVENS,
Bethel Bungalow,
Nyack, N. Y.

ORSON A. TIFFANY,
Norwich, N. Y.

ARTHUR WESTFALL,
845 Seventh Ave.,
Troy, N. Y.

FRED C. WILLIG,
554 Willet Ave.,
Pt. Chester, N. Y.

S. M. ANDERSON,
R. F. D. No. 3, Box 64,
Wilton, N. Dak.

WM. HENRICH,
R. F. D. No. 1, Box 4,
Valley City, N. Dak.

CARL T. MIDBO,
R. F. D. No. 2, Box 9,
Northwood, N. Dak.

M. K. SARGENT,
Wyndmere, N. Dak.

C. O. SWENSON,
Northwood, N. Dak.

F. ABEND,
3602 W. 47th St.,
Cleveland, Ohio.

A. A. BALLMER,
R. F. D. No. 3,
McClure, Ohio.

JOHN C. BOYLE,
R. F. D. No. 5,
Hamilton, Ohio.

HOMER J. BRADSHAW,
R. F. D. No. 2, Box 73,
Berea, Ohio.

CHAS. E. HEIL,
4301 Bridge Ave.,
Cleveland, Ohio.

COYLE BROS.,
1201 Grand Blvd.,
Hamilton, Ohio.

E. E. DUNCAN,
R. F. D. No. 5, Box 80,
Troy, Ohio.

OTTO GIERMANN,
West Park, Ohio.

EARL J. H. LEIS,
139 Weakley St.,
Dayton, Ohio.

W. W. PELTON,
R. F. D. No. 4, Box 13,
Fostoria, Ohio.

W. G. PROCTOR,
415 N. Fourth St.,
Cincinnati, Ohio.

FRANK W. SELLERS,
517 Baltimore St.,
Middletown, Ohio.

L. C. SMITH,
5233 Rolston Ave.,
Norwood, Ohio.

R. C. SOUR,
Amsden, Ohio.

J. F. STACKS,
Grafton, Ohio.

ADAM VONAN,
White House, Ohio.

JOHN F. WARD,
Madisonville, Ohio.

WALTER W. WILKINSON,
525 No. Dawson St.,
Uhrichsville, Ohio.

ALBERT YOUNG,
R. F. D. No. 3,
Springfield, Ohio.

CHARLES ZELIERS,
429 Mifflin St.,
Columbus, Ohio.

WILLIAM B. BROWN,
Girardville, Penn.

W. M. BROWN,
Box 513,
Greensburg, Penn.

A. E. CABLE,
413 Washington Ave.,
Connellsville, Penn.

JOHN R. DAVIS,
42 East Ave.,
Mt. Carmel, Penn.

JOHN DECKER,
99 Lehigh St.,
Wilkes-Barre, Penn.

WM. M. DE LONG,
532 St. Johns St.,
Allentown, Penn.

JOHN DONNELLAN,
504 So. Mill St.,
New Castle, Penn.

JOSEPH FAIRELOUGH,
128 Main St.,
Taylor, Penn.

MAGNUS GROLL,
1424 First Ave.,
Altoona, Penn.

HARRY L. HEACOX,
Box 157,
Derry, Penn.

HARRY HERSH,
Wilkes-Barre, Penn.

WILLIAM H. HUTCHINGS,
Box 85,
Avoca, Penn.

J. F. JACOBY,
2520 Seventh Ave.,
Altoona, Penn.

VALENTINE KLEIN,
121 S. Beach St.,
Mt. Carmel, Penn.

EDWARD KREWSON,
White Haven, Penn.

SAMUEL McFARLANE,
Fayette City, Penn.

J. C. McMULLEN,
R. F. D. No. 2, Box 66,
Patton, Penn.

JOHN MORRISSEY,
Alden Sta., Penn.

JOHN W. RAINEY,
2604 Sixth Ave.,
Altoona, Penn.

W. A. REESE,
Box 273,
Saint Clair, Penn.

H. G. RUEHL,
610 Keystone Ave.,
Bellevue, Penn.

MICHAEL SCHAB,
832 Evergreen Ave.,
Millvale, Penn.

C. W. SHAFFER,
230 Ridge Ave.,
New Kensington, Penn.

HENRY SCHWENZER,
R. F. D. No. 2,
Allentown, Penn.

HARRY D. SEIBERT,
1164 Church St.,
Reading, Penn.

C. T. SETTLEMAYER,
Cambria Co.,
Wilmore, Penn.

J. P. SHELTON,
227 First St.,
Butler, Penn.

A. SIMONS,
526 E. Seventh St.,
Erie, Penn.

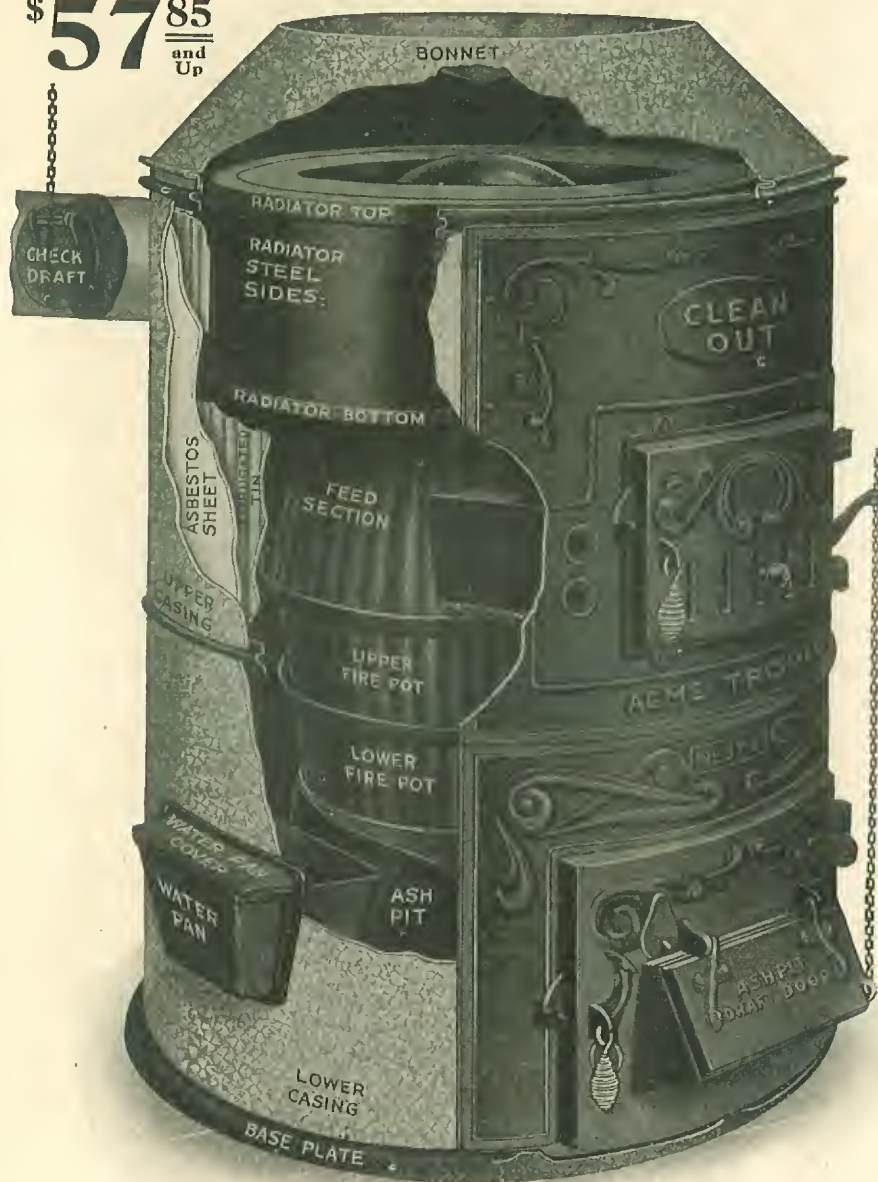
WILSON M. SMOYER,
Enaus, Penn.

FRED J. STEVENS,
Monaca, Penn.

WM. STUMP,
130 Corey Ave.,
Braddock, Penn.

Acme Tropic Warm Air Furnace

\$57⁸⁵
and Up



For Hard (Anthracite)
Coal or Coke.

This furnace is constructed along identically the same lines as our Acme Volcano Furnace shown on page 33, except for the radiator. Steel is recognized as being a much quicker radiating material than cast iron, but unfortunately the sulphur fumes in soft coal smoke attack steel and corrode it much quicker than iron. Hence the virtue of the steel radiator can only be taken advantage of with hard coal and coke fuels. Therefore, we offer our Acme Tropic for use with these fuels only, or for gas when ordered with gas burner shown on page 38. We recommend our Acme Tropic very highly and have been selling it for nearly fifteen years with great success.

Detailed Description.

Base Plate—This furnace has a solid one-piece cast iron base plate, consisting of the ash pit bottom and the outer base ring connected by five extra cast iron arms.

Ash Pit—Unusually deep and roomy, with plenty of space for accumulation of ashes without danger of burning out the grates.

Grates—Heavy triangular-revolving bar type. This style of grate is by far the most convenient and efficient devised for this kind of furnace. Operated by means of a shaker handle working the two outer bars which are connected by cogs to the two center bars. A turn or two of the shaker handle cleans the entire grate surface of ashes.

Fire Pot—Cast in two heavy sections, the middle joint allowing for expansion and contraction. Extra deep and wide cup joints prevent any danger of escaping gas. Entire fire pot is heavily corrugated, increasing the radiating surface to almost double.

Feed Section—Made extra heavy and fully corrugated to increase the radiating surface.

Radiator—Heavy cast iron top and bottom with cold rolled steel plate sides. Steel is the best heat radiating metal for furnaces. Fire and smoke pass around the entire circumference of the radiator before entering the smoke pipe, giving up most of their heat before going up the chimney.

Casings—Made of heavy 26-gauge bright galvanized iron. Upper section of side casing is lined with a thickness of asbestos felt, with an inner lining of corrugated bright tin plate. This lining prevents loss of heat by radiation in the basement. The bright tin lining acts as a reflector, throwing the heat back and warming the air as it passes through the casing. The lower section of the casing does not need to be lined, as that is where the cool air comes in, and the bonnet cannot be lined on account of the many holes which must be made in it.

Doors—Extra large, making it very convenient to feed and clean the furnace. Extra clean out door furnished with every furnace, so that the radiator can be turned for the smoke pipe to go in any direction desired.

Water Pan—Large iron vapor pan to be kept filled with water to moisten the air and keep it fresh and wholesome.

Accessories—With every furnace we supply an oxidized copper plated damper regulator, to be screwed to the baseboard in the living room, with chains and pulleys for connecting it to the check and draft dampers, plenty of asbestos cement for the joints, full complement of bolts, shaker handle and poker.

Acme Tropic Warm Air Furnace for Hard Coal or Coke.

Prices subject to market changes.

Shipped from foundry in OHIO, from which point customer pays the freight. When ordered with fittings and registers the complete heating plant is shipped together in one consignment.

Catalog number	42B2180	42B2181	42B2182
Furnace number	320	322	324
Diameter of casing, inches	34	38	42
Diameter of fire pot, inches	26	22	24
Size of ash door opening, inches	12½x16	13½x18	14½x20½
Size of feed door opening, inches	9 x11½	9 x11½	9½x12½
Diameter of smoke pipe, inches	7	7	8
Height of radiator, inches	12½	12½	12½
Diameter of radiator, inches	28	31	35
Height with casing, inches	56	59	62
Shipping weight, including casing, about, pounds	715	860	1,040
Heating capacity, cubic feet	10,000	15,000	20,000
Price with casing, as illustrated	\$57.85	\$70.35	\$80.45

Our Positive Water Coil to fit any of these furnaces, \$2.00 extra. (See page 38.)

Any of these furnaces equipped with gas fire pot in place of regular upper fire pot at a slight extra charge. (See page 38.)

If you want our Acme Tropic Furnace, fill out the information blank which came with this catalog, or draw a plan of your house on any piece of paper and send it to us for a price on the necessary pipes and registers to complete the heating plant. We can guarantee our furnaces to give the proper results only when they are put in according to the installation plans which we furnish. Furnaces bought alone without fittings can be guaranteed only as to quality of material.

Acme Volcano Warm Air Furnace

For Hard and Soft Coal

\$60⁹⁵
and
Up.

We recommend this as the best warm air furnace in our line. The type is standard, has given satisfaction for many years, and we have no hesitancy in offering our Acme Volcano as the equal of any warm air furnace sold elsewhere at a much higher price. It is very economical in the consumption of coal, has an unusually large amount of radiating surface and with good care ought to last a lifetime. The parts are all carefully made and fitted at the factory, so that they will go together without any trouble. If you want a high type of furnace buy the Volcano, and you will not only get quality but will save money at the same time.

Detailed Description

Base Plate—This furnace has a solid one-piece cast iron base plate, consisting of the ash pit bottom and the outer base ring connected by five extra heavy cast iron arms.

Ash Pit—Unusually deep and roomy, with plenty of space for accumulation of ashes without danger of burning out the grates.

Grates—Heavy triangular revolving bar type. This style of grate is by far the most convenient and efficient devised for this kind of furnace. Operated by means of a shaker handle working the two outer bars which are connected by cogs to the center bars. A turn or two of the shaker handle cleans the entire grate surface of ashes.

Fire Pot—Cast in two heavy sections, the middle joint allowing for expansion and contraction. Extra deep and wide cup joints prevent any danger of escaping gas. Entire fire pot is heavily corrugated, increasing the radiating surface to almost double.

Feed Section—Made extra heavy and fully corrugated to increase the radiating surface.

Radiator—All cast iron, made in two pieces. The upper and lower parts are fitted together with a tongue and groove joint, well bolted and packed with asbestos, making a gastight construction of very high merit. Fire and smoke travel around both sides of the radiator before going out the smoke pipe.

Casings—Made of heavy 26-gauge bright galvanized iron. Upper section of side casing is lined with a thickness of asbestos felt, with an inner lining of corrugated bright tin plate. This lining prevents loss of heat by radiation in the basement. The bright tin lining acts as a reflector, throwing the heat back and warming the air as it passes through the casing. The lower section of the casing does not need to be lined, as that is where the cool air comes in, and the bonnet cannot be lined on account of the many holes which must be made in it.

Doors—Extra large, making it very convenient to feed and clean the furnace. Extra clean out door furnished with every furnace, so that the radiator can be turned for the smoke pipe to go in any direction desired.

Water Pan—Large iron vapor pan to be kept filled with water to moisten the air and keep it fresh and wholesome.

Accessories—With every furnace we supply an oxidized copper plated damper regulator, to be screwed to the baseboard in the living room, with chains and pulleys for connecting it to the check and draft dampers, plenty of asbestos cement for the joints, full complement of bolts, shaker handle and poker.



Acme Volcano Warm Air Furnace for Hard and Soft Coal.

Prices Subject to Market Changes.

Shipped from foundry in OHIO, from which point customer pays the freight. When ordered with fittings and registers the complete heating plant is shipped together in one consignment.

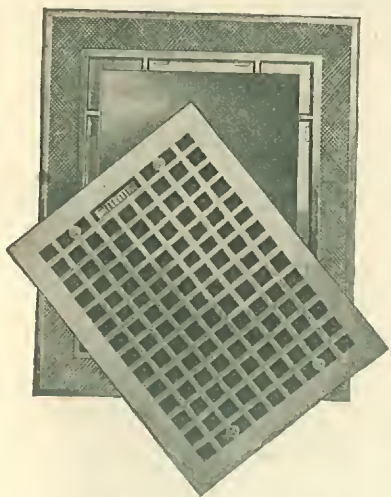
Catalog number.....	42B2190	42B2191	42B2192	42B2193	42B2194	42B2195
Furnace number.....	320	322	324	326	328	330
Diameter of casing, inches.....	34	38	42	46	50	54
Diameter of fire pot, inches.....	20	22	24	26	28	30
Size of ash door, opening, inches.....	12 $\frac{1}{2}$ x16	13 $\frac{1}{2}$ x18	14 $\frac{1}{2}$ x20 $\frac{1}{2}$	15 $\frac{1}{2}$ x22 $\frac{1}{2}$	16 $\frac{1}{2}$ x23 $\frac{1}{2}$	16 $\frac{3}{4}$ x25
Size of feed door, opening, inches.....	9x11 $\frac{1}{4}$	9x11 $\frac{1}{4}$	9 $\frac{3}{8}$ x12 $\frac{5}{8}$	9 $\frac{3}{8}$ x12 $\frac{5}{8}$	10 $\frac{1}{4}$ x12 $\frac{3}{4}$	10 $\frac{1}{4}$ x12 $\frac{3}{4}$
Diameter of smoke pipe, inches.....	8	8	8	9	9	10
Height of radiator, inches.....	10	11 $\frac{1}{4}$	11 $\frac{3}{4}$	12 $\frac{1}{2}$	13 $\frac{1}{4}$	13 $\frac{1}{4}$
Diameter of radiator, inches.....	29	32	36	40	45	49
Height with casing, inches.....	56	59	62	65	68	73
Shipping weight, including casing, about pounds.....	775	910	1,115	1,330	1,565	1,710
Heating capacity, cubic feet.....	10,000	15,000	20,000	30,000	40,000	50,000
Price with casing, as illustrated.....	\$60.95	\$73.90	\$84.80	\$102.05	\$123.90	\$148.85

Our Positive Water Coil to fit any of these furnaces, \$2.00 extra. (See page 38.)

The prices quoted on this page do not include any registers, pipes or fittings. If you will fill out the information blank which came with this catalog, or draw a plan of your house on any kind of paper, we will gladly quote a complete price on all the material required for a guaranteed Warm Air Heating Plant. We can guarantee our furnaces to give the proper results only when they are put in according to the installation plans which we furnish. Furnaces bought alone without fittings can be guaranteed only as to quality of material.

High Grade Cast Iron and Steel Registers

It is optional with the purchaser whether the registers be placed in the floors or in the walls, but unless otherwise instructed we al-

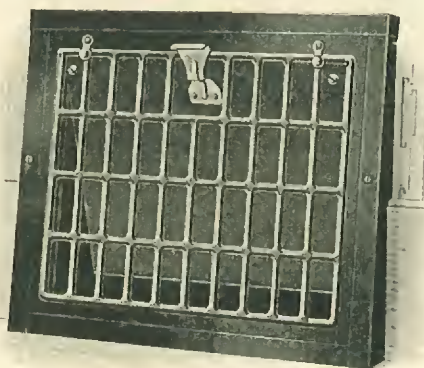


Floor Register and Cast Iron Border.

ways quote on floor registers for the downstairs rooms and wall registers for upstairs, as that is the lowest priced arrangement. Wall registers for the downstairs rooms cost more, but are preferred by many people because they are put out of the

way where they cannot be walked upon, and also there is no liability of dirt or sweepings getting down into the pipes. Either kind of register will work perfectly, and we sell many more floor registers than we do wall registers.

Our floor registers are made with a heavy cast iron face plate, while the under, or body part, with the slats or valves, is made of tough pressed steel. This makes an ideal floor register, for the cast face is very rigid and will not bend or give under the

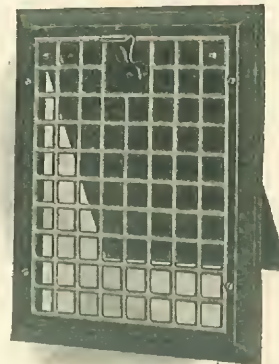


Side Wall Register for first floor rooms.

weight of the heaviest person, while the steel body is practically unbreakable, this combination making the complete register lighter in weight than an all cast one. We always include a cast iron border for each floor register. We also include a cast iron return air face unless otherwise instructed, but can furnish this face made of oak wood where it is desirable to finish the large face to match the

floors. There being nothing but cool air passing through this large face it is entirely safe to make it of wood.

Our wall registers are made entirely of pressed steel. They are extremely light in weight and yet very substantial and practically unbreakable. The wall registers for the first floor are set down into the baseboard and are made with a deep throat to give plenty of air space. Those for upstairs are placed above the baseboard and fit flat against the plastering. Our wall registers are all equipped with one-piece deflecting valves which throw the air current out away from the walls.

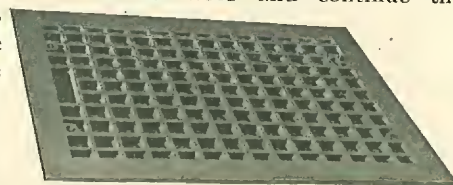


Side Wall Register for second story rooms.

We use the plain square lattice design for all our registers, as this pattern harmonizes most readily with all styles of furnishings and is very neat and plain.

Unless otherwise instructed we always figure on black japanned finish. This is generally used and is really the most suitable finish for registers and costs less than the fancy finishes. We can, however, furnish any of the standard electroplated finishes, but carry only the oxidized copper in addition to the regular black in stock at our factory. Other special finishes must be shipped separately, direct from the register factory. We never recommend any of the plated finishes for the floor registers, borders or return air faces, because they will not withstand the wear of being walked on, but for the wall registers it is sometimes desirable to have a finish to match the other hardware trimmings of the house.

Under some conditions it is possible to use our side wall registers on the first floor and continue the same pipe up through the wall to the room above, thus heating two rooms from one pipe. In the case of small rooms, or rooms that are not to be heated all the time, this method is often found desirable and entirely practicable.



Return Air Register Face. Open design, giving great air capacity.

Our High Quality Tin Pipe and Fittings

All our tin fittings are made by one of the largest manufacturers in this line in the United States. They are made on the latest type of labor saving machinery and by the highest skilled mechanics that money can employ. Only high qualities of heavy tin plate and heavy galvanized steel are used, and we have taken every precaution to provide pipe and fittings that will cause you no unnecessary work or trouble in using. There are many varieties of cheaper fittings on the market; adjustable elbows that will not adjust; tin pipe that does not run true to size, and common single wall pipe from which the asbestos covering is torn or scraped off almost before it is placed in position. We have carefully avoided all these imperfect fittings and offer you high quality in every respect.

Double Wall Pipe.

We direct your especial attention to our double wall pipe, shown at the right. It is put up in lengths from 2 inches to about 5 feet. Each section is furnished with slip and socket ends. By using the 5-foot section in connection with the shorter lengths any length can be made without the labor of cutting and at the least possible expense for installation. This pipe being constructed with an air space between its



Our Elbows are adjustable to any angle desired.

walls absolutely prevents the loss of heat and obviates any possible danger of fire, as the outer surface of the tin pipe is at all times cool, owing to the current of air between it and the inner pipe. This pipe costs a little more than common single wall pipe, but when its manifest advantages are taken into account, together with the absolute protection from fire which it affords, it is decidedly the cheaper. It is entirely unnecessary to cover this pipe with asbestos, as the air

space is far superior to asbestos wrapping. We have a full line of angles, offsets, elbows, boots, heads and all other fittings required to make a perfect job of heating any room, no matter where it is located. The wall pipe is made in various sizes, and we carefully select just the one required for the different rooms to be heated, guaranteeing that the proper amount of heat will be delivered through each and every pipe.

Round Basement Pipe.

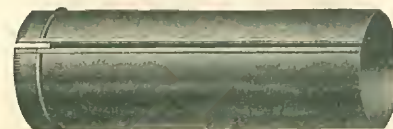
Our round tin pipe is smooth, straight and perfectly made, so that it will go together without any trouble. It is shipped knocked down, packed solid in a roll. Each section is formed and shaped all ready to be locked in position and connected up with the furnace. There is no soldering to be done and no tools are required save only your two hands. Each joint of pipe is uniformly and perfectly crimped at one end, so that it will easily and snugly fit into the next section and really makes one continuous piece of pipe after it is put together. The sections are about 2 feet in length. By shipping this pipe knocked down and packed solid in a bundle it takes a much lower freight rate, and the saving is entirely yours. The made up pipe in long sections makes necessary the use of large bulky crates that are hard to handle and expensive to make. We can furnish the made up pipe to anyone who



Fifty feet of pipe, all sizes, nested.



Bundle of Nested Pipe, packed ready for shipment.



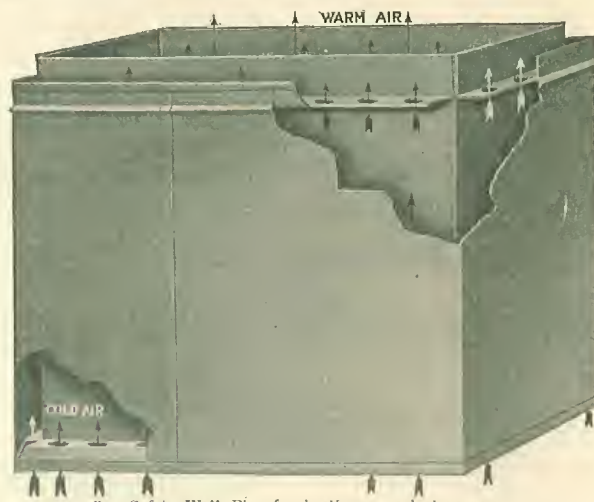
Pipe before being locked.



The seam when locked is tight and rigid.

Our Patented Nested Warm Air Pipe.

prefers it, but unless otherwise specified we will send you our special knocked down pipe, put up in convenient solidly packed bundles that cannot be mashed, dented or damaged in any way by the railroad company.



Our Safety Wall Pipe for heating second story rooms.

We can furnish round galvanized pipe for return air ducts made in the same way and shipped in small, compact, handy packages. Even the large sizes are now shipped as easily as small 8-inch pipe, whereas heretofore the made up pipe necessitated very large bulky crates, and even then the pipe would often reach destination with the crate damaged and the pipe dented in. We furnish this galvanized iron return air pipe to those who want it, but we refer you to the illustration on page 5 for a money saving suggestion in regard to the return air flue. A wooden duct made of matched flooring boards is just as good and in most cases cheaper.

Our Adjustable Elbows.

Our elbows are adjustable and their use enables anyone to apply the exact degree required without the expense and labor of constructing special elbows. By taking the elbow at both ends and turning it, the adjustment is easily effected. These elbows are in a class by themselves. They are made by machinery especially designed for their manufacture and are as nearly perfect as it is possible to produce. We believe that we have overcome all the defects of other adjustable elbows. There are no upright seams in them and therefore they will reach you in perfect condition. Upright seams will mash down in shipping, owing to their construction. The seams in our elbows are made so that instead of being the weakest part, as is common in faulty construction, they are the strongest part in the elbow and they cannot be taken apart without destroying the material.

Why We Do Not Print a Price List of Furnace Fittings.

We can at all times furnish everything in the line of furnace fittings and accessories, but we do not print a price list. We will, however, quote prices when our customers send accurate lists of what they want.

We guarantee the perfect operation of our furnaces in such broad and binding terms that we cannot allow our customers to select the fittings themselves. In a matter as important as the size and style of the registers, pipes, wall stack, etc., we must control the selection. Remember, a furnace cannot perform the service for which it was made unless it is properly installed and proper fittings are used.

"Insultite" Corrugated Asbestos Covering for Furnace Pipes

Prevents Waste of Heat in Basement. Saves Its Cost in One Winter.

Shipped From Factory in OHIO.

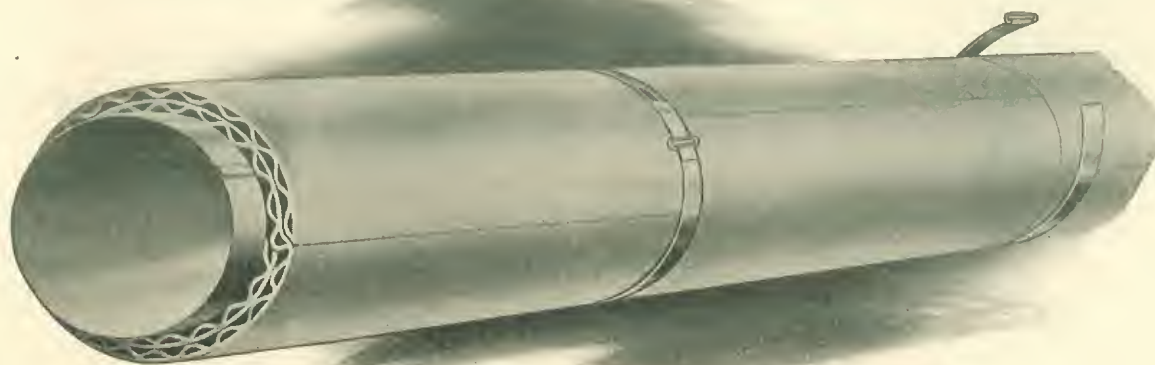
For years common asbestos felt or paper was the only covering used on warm air furnace pipes. People were striving to wrap the basement pipes with something that would prevent the loss of heat in the basement by radiation, and while the asbestos paper was better than nothing, yet the results were not satisfactory. The basement remained warm and a great amount of heat was wasted. The flat, thin, compact sheets of common asbestos paper pasted around the tin pipe did not prevent all of the radiation and loss of heat.

The best known non-conductor of heat is entrapped or confined air. A common illustration is found in the practice of building houses with hollow walls to make them warmer. The dead air confined in the walls prevents the heat inside the building from passing through the walls and being lost. For the same reason loose garments are warmer than tight clothing. Arctic explorers wear ill fitting, baggy suits made of skins with the hair on the inside, because the fur keeps

the outer and inner walls of clothing apart, allowing a cushion of entrapped air to insulate the natural heat of the body and prevent loss by radiation.

The thin compact asbestos paper commonly used on furnace pipes entraps no air. To provide this necessary air pocket, we have perfected a corrugated covering which we recommend very strongly as being an ideal furnace pipe wrapping.

In making our "Insultite" Corrugated Asbestos Covering we use two sheets of heavy asbestos paper, one corrugated and the other smooth. The corrugating is done by means of large heated crimping rollers, and the two sheets are then cemented together with a fireproof compound and passed through an intensely hot gas flame to set the cement. The corrugations are about $\frac{1}{4}$ inch deep and quite stiff, permitting the "Insultite" covering to be readily made up into rolls for shipping, without danger of crushing.



One layer of our "Insultite" Corrugated Asbestos Covering around a furnace pipe would prove to be a very much more effective insulator than any other wrapping, but we always specify two layers, for in the double thickness there will be about $\frac{1}{2}$ inch of entrapped air space, which will practically stop all loss of heat. Pipes wrapped with a double thickness of "Insultite" may be run through the vegetable room in the basement with perfect safety to your winter stores.

The operation of applying "Insultite" covering to the pipes is extremely simple, and a glance at the illustration on this page will be sufficient to explain the whole process. Cut off a strip from the roll, long enough to go twice around the pipe and put it on, pasting down the end with our Asbestos Paste No. 42B2205, listed on page 37, or any good flour paste. Repeat the process and put on the next section. Then cover the joint between the two sections with one of the brass

lacquered bands which come with the "Insultite," drawing it up tight and bending the end over to hold it. We furnish plenty of the bands so that all joints can be covered. At the elbows and angles the covering will have to be cut to fit, but this can be easily done with a common pair of scissors, the same as has always been done with the common asbestos paper.

"Insultite" is put up in rolls 36 inches wide, each containing 250 square feet. One roll will cover from 40 to 50 lineal feet of furnace pipe, two thicknesses. We do not ship less than full rolls. If you have but 60 lineal feet of pipes, you must order two full rolls, but you will find the extra "Insultite" very handy for covering the top of the furnace to protect the floor joists from excessive heat, or for covering the smoke pipe if it is dangerously near the woodwork. In fact, "Insultite" has a wide field of usefulness wherever a light, flexible insulating material is required.

Price of "Insultite" Corrugated Asbestos Furnace Pipe Covering.

Shipped from factory at Cincinnati, Ohio. Weight, per roll, crated, 80 pounds.

No. 42B2200 "Insultite" Corrugated Asbestos Furnace Pipe Covering in rolls 36 inches wide, containing 250 square feet.

Price, per roll..... \$9.00

This price includes enough brass lacquered bands, $\frac{3}{4}$ inch wide, to properly bind the "Insultite." When ordering be sure to tell us how many feet of pipe of each size you want to cover, so that we can send bands of the correct lengths.

Asbestos Paper

This asbestos paper or felt is an absolutely fireproof material, being made of natural mineral asbestos fibers reduced to a pulp and spread out into a sheet of uniform thickness. It is grayish white in color and very soft and pliable. It is easily cut with a common pair of scissors and is usually applied with starch paste, or the special asbestos paste listed below can be used.

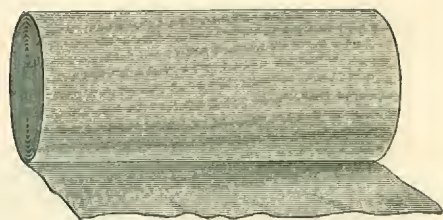
This asbestos paper can be used for many purposes. It is a perfect protection for wood partitions, walls and ceilings exposed to heat and makes an excellent lining for floors and walls. It can be used for insulating either hot or cold pipes. It is extra thick and weighs 14 pounds per 100 square feet. It comes in rolls 36 inches wide and we do not break full rolls.

Shipped from CHICAGO. Prices subject to market changes.

No. 42B2202	Asbestos Paper, 100-yard roll.	Weight, 124 lbs.	Price, each.....	\$16.55
No. 42B2203	Asbestos Paper, 50-yard roll.	Weight, 61 lbs.	Price, each.....	8.30
No. 42B2204	Asbestos Paper, 25-yard roll.	Weight, 32 lbs.	Price, each.....	4.20

Asbestos Paste for applying above paper to furnace pipes. Simply mix with cold water and use. Comes in packages of 2½ pounds, which is sufficient for any ordinary furnace job.

No. 42B2205	Asbestos Paste.	Price, per package.....	30c
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Plastic Asbestos Furnace Cement



This is the well known old reliable plastic asbestos furnace cement, composed of pure mineral asbestos fibers ground and pulverized and compounded with other fire and acid proof materials. We always furnish plenty of this cement with every furnace we sell, but we list the cement separately here for the convenience of those who may want some for other purposes or to re-cement an old furnace.

This cement is soft and easily worked with a putty knife when fresh but quickly hardens when exposed to the air, and when heated becomes almost as hard as the iron on which it is used. It makes the joints in a furnace gas and smoke tight. It is often possible to patch up a cracked fire pot with this cement so as to make it last a season or two longer.

Shipped from CHICAGO.

No. 42B2206	Asbestos Furnace Cement in 10-pound cans.	Price, per can.....	65c
No. 42B2207	Asbestos Furnace Cement in 5-pound cans.	Price, per can.....	35c
No. 42B2208	Asbestos Furnace Cement in 2-pound cans.	Price, per can.....	20c

Saves \$40.00 on the Outfit.

805 W. Jenny St.,
Bay City, Mich.

Sears, Roebuck and Co.,
Chicago, Ill.

Dear Sirs:—I have my furnace all installed and running and I have great pleasure in saying that it gives me perfect satisfaction and figure that I saved at least \$40.00 on the outfit.

Sincerely yours,

SAM W. BROWN.

Send for Free Estimate.

It will cost you absolutely nothing to get an estimate from us on a heating plant which we will guarantee to give you perfect satisfaction for years and years to come. We shall be glad to figure for you, and we want you to know that this will put you under no obligation to buy from us. All we want is an opportunity to show you what a reasonable price we can make you, a price which you will find well within your means—a price which will enable you to purchase right now the comfort you have long wished for.

Fill out the information blank enclosed with this catalog, giving us the measurements of the different floors of your building and the rough drawings we ask for. It will take only a short time to fill out the blank. Then mail it to us, and in a few days we will return you a complete estimate showing just what you will need, with the price and even the freight charges figured out.



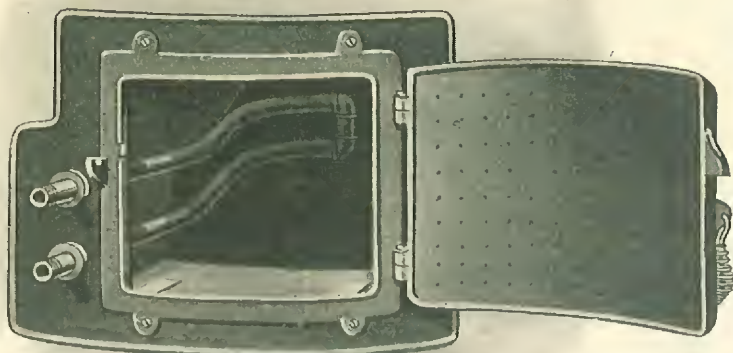
Estimate and Specifications of a Hercules Heating Plant Given Free of Charge.

Why Wait?

You know which way prices have been going recently. The cost of metals has been constantly going up. We shall hold the prices quoted in this catalog as long as we can, but we do not know how long that will be. For that reason we say to you, send in the blank NOW and get your estimate at the present prices.

Heat Water in Your Furnace

Plenty of Steaming Hot Water All the Time When You Use Our Positive Hot Water Coil



Our Positive Hot Water Coil is a reliable and most efficient heater. It is made of two pieces of first quality black merchant pipe, skillfully bent to conform to the circumference of the fire pot of the furnace, and connected at the back end by a nipple and two elbows. We make it in six sizes for 20, 22, 24, 26, 28 and 30-inch fire pots. Its shape gives it the maximum amount of heating surface, and since it follows the curve of the fire pot it does not interfere with the fire in any way. Straight coils always are in the way of the firing tools and prevent the heaping up of a big body of coal.

All our furnaces are provided with holes in the feed door frame to accommodate the pipes of our Positive Hot Water Coil. These holes are covered by a small cap when no

heater is used. The pipes are sufficiently long to reach out through the front of the furnace, so your plumber can easily connect the pipes from the range boiler. There is no difficulty in installing the Positive Hot Water Coil, and as long as the pipes are kept filled with water there is no chance of burning out. No matter where your range boiler is located, our Positive Hot Water Coil will keep it hot all the time, and the flow of the water is automatic and continuous.

Our Positive Hot Water Coil can be used on any furnace of any make. Most furnace manufacturers provide holes for the inserting of pipes for water heating, but if your furnace is not so arranged it is an easy matter to have holes drilled.

Shipped from FOUNDRY with furnaces or from CHICAGO. Shipping weight, about 10 pounds.

No. 42B2201 Positive Hot Water Coil for furnaces, complete as illustrated.

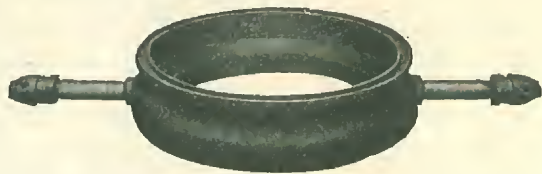
Price, each..... **\$2.00**

NOTE—If ordered alone, we must know the size of the fire pot of your furnace.

NOTE—We offer our Positive Hot Water Coil for heating range boilers only, for kitchen and bath purposes, but do not recommend its use for hot water or steam heating radiators.

You Can Burn Natural Gas in Our Acme Hummer and Acme Tropic Furnaces

If you live where there is natural gas and want to use it for fuel we can equip our Acme Hummer and Acme Tropic furnaces with a gas burner that will give you perfect satisfaction. We have arranged a special gas fire pot for our Acme Hummer and Acme Tropic furnaces to accommodate our customers who live in natural gas districts. This gas fire pot takes the place of the lower section of the regular coal fire pot and is so made that if at any time the supply of natural gas should become exhausted the furnace could be used for coal without any changes or alterations. This special gas fire pot is made with a row of jet holes clear around the top, and is provided with two openings so that the gas supply pipes enter both sides of the furnace. This insures an even distribution of the fuel and makes a much hotter fire all around the furnace. We furnish two pieces of 1¼-inch pipe, extending through the casing with two air mixers for each gas fire pot. We do not, however, furnish valves or shut offs, as these must be attached by the plumber or gasfitter.



We do not change any other features or parts of our furnace, so the grates and everything are ready for coal burning at a moment's notice if you desire to change the fuel. In fact, some of our customers burn coal part of the year and gas during the remaining part. They find the gas burner very handy for lighting a coal fire, as they simply put in the fuel, turn on the gas, strike a match and the gas flame very quickly ignites the coal, thus doing away with the need of all kindling wood. We would be very glad to figure on either our Acme Hummer or Acme Tropic furnaces equipped with our combination gas fire pot at any time. We will gladly quote prices when a gas fire pot is wanted.

What Our Customers Think of Our Warm Air Systems

Letters From Some and Names and Addresses of Others

We have sold thousands of our Warm Air Heating Plants in all parts of the United States and receive many letters from day to day telling of the satisfaction these plants have given, of the savings our customers have made, of the simplicity of installation and operation. There is space to give only a few of the letters and to give the names and addresses of other users to whom you may refer if you wish. If you write to any of these folks, we suggest that you enclose a stamp for reply.

B. F. EASTON,
P. O. Box 5,
East Lynne, Conn.

J. F. FOSTER,
R. F. D. 1, Box 27,
Wenona, Ill.

J. P. ZIEGLER,
R. F. D. 2,
Edingham, Ill.

J. E. MORRIS,
R. F. D. 4,
Sheridan, Ill.

A. A. SMITH,
213 Ridgewood Ave.,
Joliet, Ill.

H. A. ZIMMERMAN,
La Salle, Ill.

FRED S. GAY,
Rockport, Ill.

S. R. GRIDLEY,
P. O. Box 355,
Rockton, Ill.

BERT MORRIS,
408 Eighteenth Ave.,
Sterling, Ill.

CHARLES PAYER,
Berwyn, Ill.

C. HOFFMANN,
508 Root St.,
Aurora, Ill.

ARTHUR McGUIN,
304 W. Ninth St.,
Sterling, Ill.

I. RAYMOND SMITH,
338 Raymond St.,
Elgin, Ill.

JAMES COONEY,
334 N. Pine St.,
Jacksonville, Ill.

A. J. BRUMME,
R. F. D. 1, Box 17,
Cooksville, Ill.

ED. C. SIPPPEL,
1408 S. Seventeenth Ave.,
Kankakee, Ill.

M. KLEIN,
Glen Ellyn, Ill.

JNO. R. BYLAND,
1714 N. Harding Ave.,
Chicago, Ill.

OTTO BOERGERHOFF,
Melrose Park, Ill.

CHAS. ANTHIM,
827 Wheeling Ave.,
Muncie, Ind.

D. B. PUGH,
Lynnville, Ind.

FRANK MINOR,
R. F. D. "E,"
Terre Haute, Ind.

FRANK W. KATTEJOHN,
Holland, Ind.

L. C. SCHUELL,
1413 Grand Ave.,
Evansville, Ind.

H. C. SCHROEDER,
1727 Wheeler St.,
Fl. Wayne, Ind.

ELMER C. GROSS,
712 Davis St.,
Fl. Wayne, Ind.

CHARLES CUNNINGHAM,
Nappanee, Ind.

JAMES H. ALLEN,
Bible Training School,
Fort Wayne, Ind.

F. J. OSTERHANS,
Earlville, Iowa.

ISAAC R. KELLER,
Elkhart, Ind.

HERMAN G. WILKINS,
1448 Leonard St.,
Davenport, Iowa.

EDD TIGGS,
3146 Conler Ave.,
Dubuque, Iowa.

C. JURKENS,
Ackley, Iowa.

S. LEE POOL,
Ocheyedan, Iowa.

OTIS D. SHAW,
Box 306,
Caldwell, Kan.

W. G. PFEIFER,
Columbus, Kan.

F. S. FISHER,
Ludell, Kan.

OLIVER CRAIG,
Danville, Ky.

R. M. KITTINGER,
Greenville, Ky.

FRED C. LUCKER,
Luthe, Me.

CHAS. W. REYNOLDS,
21 Bromfield St.,
Wollaston, Mass.

FRANK FRULAND,
Grayling, Mich.

HARRY MONIER,
Hudson, Mich.

ALBERT A. WOOD,
774 Broadway,
Benton Harbor, Mich.

A. VERMEULEN,
1335 N. Church St.,
Kalamazoo, Mich.

WM. E. RICHARDSON,
R. F. D. 1,
Six Lakes, Mich.

WM. RAE YOUNG, M. D.,
Box 453,
Lawton, Mich.

ADOLPH J. BERGOR,
208 Maple St.,
Ypsilanti, Mich.

ERNEST HUTZEL,
R. F. D. 3,
Chelsea, Mich.

MR. AND MRS. P. DERKS,
203 W. Seventeenth St.,
Holland, Mich.

FRANK PIETSCH,
Janesville, Minn.

JENS LEVISON,
Albert Lea, Minn.

CARL J. MARTINSON,
Hutchinson, Minn.

J. J. FABENE,
4313 W. Seventh St.,
West Duluth, Minn.

JOHN FIECK,
Douglas, Minn.

H. POPPENBERG,
Second Ave. N. E.,
Brainerd, Minn.

OSCAR LINDQUIST,
Chicago City, Minn.

WALKER GROOM,
Maysville, Mo.

W. E. JONES,
Centralia, Mo.

J. M. BATMAN,
Brookfield, Mo.

CHAS. KLEIN,
Kern, Mont.

JACOB DEWALD,
Box 18,
Marsh, Mont.

A. B. WELLS,
Box 22,
Glenfana, Mont.

HENRY F. SONDEMP,
R. F. D. 1, Box 123,
St. Paul, Neb.

CLAY SHEPARDSON,
R. F. D. 1,
Poole, Neb.

FRANK H. BASSETT,
Kirkwood, Neb.

J. W. LIPPINCOTT,
R. F. D. 3,
Morrill, Neb.

C. VERDUIN,
Missouri Route,
Crookston, Neb.

O. F. WITTER,
Hinsdale, N. Y.

P. J. FAY,
E. Rush, N. Y.

W. B. WILLIAMS,
Port Leyden, N. Y.

JOS. C. KENNY,
220 S. Cayuga St.,
Williamsville, N. Y.

T. R. PARRENT,
Hendersonville, N. C.

A. J. KOTTRICK,
Mandan, N. D.

WALLACE VEITCH,
Grand Forks, N. D.

WM. GARDNER,
Daglum, N. D.

L. B. STANTON,
Antler, N. D.

H. L. ELLIOTT,
Minot, N. D.

J. H. WENKUM,
317 Eighth Ave.,
Minot, N. D.

OLE E. OPSTAD,
Larson, N. D.

ALFRED W. TRUSCOTT,
Box 12, Hillside Ave.,
E. Akron, Ohio.

JOHN J. BERNIS,
1406 Vine Ave.,
Canton, Ohio.

O. A. RICHARDS,
Alliance, Ohio.

I. E. FRONTZ,
R. F. D. 1, Box 42,
Perrysville, Ohio.

IRVAN LA VALLEY,
1941 E. Twenty-Ninth St.,
Lorain, Ohio.

ARTHUR DUNCAN,
613 Ingram Ave. S. W.,
Canton, Ohio.

H. M. PALMES,
Box 61,
Boughtonville, Ohio.

L. A. PEARSON,
Newark, Ohio.

A. A. WHIPPLE,
351 E. Walnut St.,
Wauseon, Ohio.

LESTER A. COLLIN,
Bowling Green, Ohio.

CLAUDE E. COVER,
Berlin Center, Ohio.

F. E. HARMON,
R. F. D. 10,
Madisonville, Ohio.

MRS. JANE MCKOWN,
Chicago Junction, Ohio.

WM. H. MAGRATH,
Alliance, Ohio.

EDWARD AFFOLTER,
503 Logan St.,
New Philadelphia, Ohio.

I. HARTMAN,
Spring Glen, Penn.

E. H. ERB,
R. F. D. 64,
Harrisville, Penn.

G. H. GAYLORD,
Waymont, Penn.

WILLIAM EDMONDS,
R. F. D. 1,
Glenshaw, Penn.

J. H. SEARIGHT,
Rochester, Penn.

W. F. BROWN,
Lewisburg, Penn.

WM. KLEY,
R. F. D. 2, Box 25,
Salisbury, Penn.

FRANK SCHRECONGOST,
R. F. D. 2, Box 30,
Lechburg, Penn.

R. H. LINDAMAN,
Littlestown, Penn.

L. G. PLANK,
Hollaepfwig, Penn.

ERWIN F. SCHIG,
226 McCartney,
Easton, Penn.

MRS. S. F. MITCHELL,
R. F. D. 7, Box 63,
Butler, Penn.

L. E. RUBY,
521 Virginia Ave.,
Butler, Penn.

OTIS STIEFEL,
Warrenville, S. C.

CHARLES A. HILL,
Box 44,
Hot Springs, S. Dak.

O. A. BURMAN,
Brookings, S. Dak.

RALPH UPHOFF,
R. F. D. 2,
De Smit, S. Dak.

CHAS. F. BAILEY,
Jamaica, Yt.

F. C. GROPPE,
3710 Wetzel St.,
Wheeling, W. Va.

W. D. REED,
Macdonald, W. Va.

E. V. JACOBSEN,
1538 Loomis St.,
La Crosse, Wis.

F. E. JOANNES,
Green Bay, Wis.

AUG. ALBRECHT,
393 Nassau St.,
Menasha, Wis.

J. B. MEES,
Box 11,
Mayville, Wis.

J. C. LITTLE,
Brandon, Wis.

GILBERT MERICLE,
632 Tayco St.,
Menasha, Wis.

WARM WITH 30 DEGREES BELOW OUTSIDE.
Howard, Wyo.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—We have had a good chance to try the furnace, as it has been 30 degrees below zero here, and will say we have been warm all the time. Below you will find the names of three of our neighbors who want furnaces on the strength of ours. Please send them catalog and plan blank.

J. M. CORNELISON.

EASY TO INSTALL—PLENTY OF MATERIAL.
3914 Ivy St., Indiana Harbor, Ind.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I had no difficulty in installing my furnace and did not employ any help in any way as I worked during spare time. I wish to say that regarding construction and materials your warm air plants are certainly fine, and above all you surely send plenty of everything, warm air pipe, smoke pipe, elbows, cement, bolts, and, in fact, everything that is needed, and always a little left over. That is a great thing for an amateur to have plenty of material, so in the event of cutting a pipe too small or losing a bolt he doesn't have to run to the hardware store to replace it before going on with the work, and, besides all that, I have saved about \$50.00. I have had several of my neighbors in looking the plant over and they all agree that I got a big value for my money. I am your very satisfied customer.

GEORGE O. LAWRENCE.

GIVES HIS ENDORSEMENT AS A MECHANIC.
1209 E. Third St., Sterling, Ill.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I thought I would let you know how we are pleased with the new Hot Air Furnace. It has the proper name and is a real "hummer." I received the furnace all O. K. in every respect. I am known as a mechanic all over Sterling and I give my best endorsement on this furnace. None to duplicate it in price or workmanship. It is open for inspection to the public.

Yours truly,
AMOS. BURKHOLDER.

EASY TO INSTALL AND HEATS PERFECTLY.
R. F. D. 2, Portsmouth, Ohio.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—Last Winter I purchased a warm air furnace from you. It was an Acme Hummer, and is surely named right, as it is a "hummer." It heats eight rooms, a bath and reception hall to our perfect satisfaction. Does not take much fuel and is perfect in every respect; easy to fire and easy to install. I did this myself by following your plans, which are very simple and easy to understand. Should I ever need another furnace, you surely will get the order.

Yours truly,
HARRY E. BIERLY.

SAVED AT LEAST \$65.00.
427 Federal St., McKeesport, Pa.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I want to say I am very much pleased with the heating plant. If you wish to use my name as reference in this city you are at liberty to do so. I feel that I have saved about \$65.00 or \$70.00 on the heating plant.

CHAS. HOFFMAN.

NOT A CENT FOR REPAIRS IN TEN YEARS.
67 East Ave. S., Battle Creek, Mich.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—The furnace has given good satisfaction for ten years without one cent of expense for repairs. The grates are straight and work as free today as they did ten years ago.

B. M. KETCHAM.

HOUSE COMFORTABLE AT ALL TIMES.
R. F. D. 8, Muskegon, Mich.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I installed the Acme Volcano Hot Air Furnace I bought from you and started the fire on Thanksgiving Day. I have had no trouble with the furnace since I first lit the fire and we are well pleased with it in every way. The house has been comfortable at all times and I would not be without it for twice the money. I installed it with the help of my own family.

Yours truly,
A. B. CURTIS.

TWENTY-TWO DAYS ON \$1.10 WORTH OF COAL.
R. F. D. 64, Harrisville, Pa.

Sears, Roebuck and Co., Chicago, Ill.

Gentlemen:—I am extremely well pleased with my furnace. I have run it through this cold weather twenty-two days on \$1.10 worth of coal and kept the house nice and warm, which could not have been done with stoves.

E. H. ERB.

Pipeless Furnaces-Economical-Efficient

Furnace Heat

\$76⁴⁵
AND UP.

FOR the home, church, school, hall, store—any building where the furnace can be placed in basement and the air given ample opportunity to circulate to all parts of the building—pipeless furnaces have proved themselves as efficient as they are certainly economical. There is but one register, placed in the floor directly above the furnace—no pipes at all except the smoke pipe.

The best location is near the center of the building. If the doors between rooms are left open, and there is an open stairway leading upstairs from the first floor (as shown in the illustration on this page), it is possible to keep the whole building comfortable.

In case there is an upper story to be heated, and the furnace and its register cannot be placed near where the warm air can rise to the upper floor (near a stairway, for instance), we suggest that you place a floor and ceiling register, like our No. 42B2212¹/₄ listed below, in the ceiling of the room in which the furnace register is placed. This arrangement is shown in the illustration on the opposite page. The warm air will rise through the ventilating register to the floor above, and if the doors on this floor are kept open this floor can also be comfortably heated.

The saving in buying a pipeless furnace is evident. It gives thoroughly satisfactory service if the conditions are right. The principle of continuous circulation of the air is most healthful. Finally, the pipeless furnace is easy to set up and takes little time to install.

Volcano Pipeless Furnaces

For Hard or Soft Coal

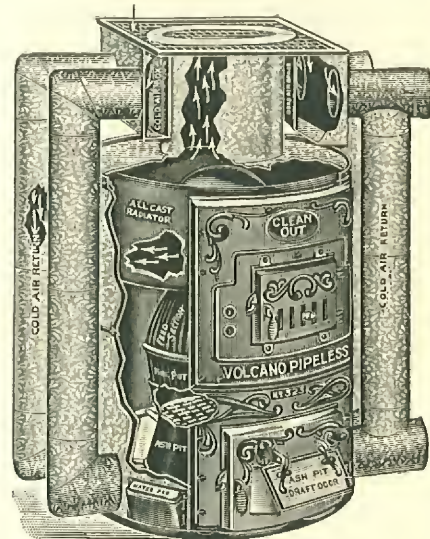
The combination cold and hot air register at the top insures good circulation of the air in the building and, therefore, good heating. The heated air rises through the center part of the register into the room above and circulates wherever possible, going through doorways and other openings into the different rooms, continuing to rise while warm, falling again as it grows cooler.

When it has given up its heat it returns to the big register, passes through the outer rim of the register into the pipes at the sides of the furnace and through them into the bottom of the furnace, where it is reheated. Notice the dead air space between the warm air part and the cold air section, preventing loss of heat. The principle of the Volcano Pipeless gives almost perfect circulation, continuously renewing and redistributing the air. We recommend it as one of the best of its kind.

The Volcano Pipeless is an all cast iron furnace with double lined upper casing. Fire pot made in two sections, heavily corrugated and with deep cup joints. Casing has asbestos felt lining and bright tin reflector, saving heat. Deep ash pit and four revolving grate bars. Oxidized copper register.

Price complete with register, casing, shaker handle poker, check draft, chains, pulleys, regulator plate and cement. Shipped direct from foundry in SOUTHERN MICHIGAN.

Be sure to give height from your basement floor to the floor level of the first floor, also the information called for in section headed, "Information We Require With All Orders for Pipeless Furnaces," in the lower right hand corner of the opposite page.



The Volcano Pipeless Furnace.

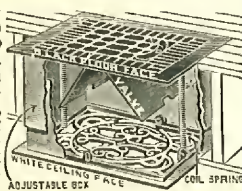
Combination Floor and Ceiling Register and Ventilator \$230

8x10 in.

To carry excess heat from room below to heat room above. Consists of a black floor register with valves, a white ceiling plate and an adjustable sheet metal box connecting the two. Easily and quickly put into position; just cut the holes in floor and ceiling, place register and ceiling plate in position and hook the two coil springs that hold them together. Adjustable to fit any floor or ceiling from 7 to 12 inches apart. When used in connection with stove will take 6-inch pipe on all sizes. State size wanted.

No. 42B2212¹/₄

Size opening in floor, about, in.	8x10	10x12	12x15
Size of register face, inches	10x12	12x14	14x17
Sbpg. wt., abt., lbs.	11	13	18
Price, each	\$2.30	\$3.10	\$4.95



	42B2255 ¹ / ₄	42B2256 ¹ / ₄	42B2257 ¹ / ₄
Diameter of fire pot, inches	20	22	24
Diameter of casing, inches	36	40	44
Size of feed door, inches	10x11	11x12	11x13
Depth of fire pot, inches	11 ¹ / ₂	12	12 ¹ / ₂
Diameter of smoke pipe, inches	8	8	9
Size of register, inches	25x25	25x25	27x27
Heating capacity, cubic feet	8,000	15,000	20,000
Approximate shipping weight, pounds	900	1,100	1,300
Price, complete	\$76.45	\$90.30	\$103.00

PRICES SUBJECT TO MARKET CHANGES.

Pipeless Furnaces-Economical-Efficient

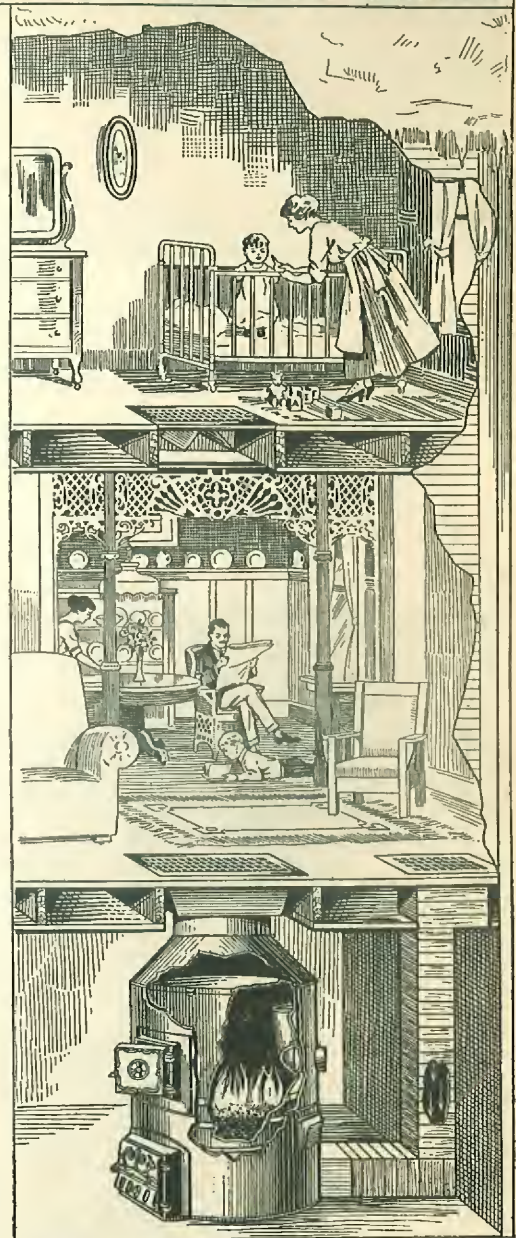
Furnace Heat

\$54⁷⁵
And Up

WHAT we have said on the opposite page as to the general uses and best location of a pipeless furnace applies equally to our Hummer Pipeless, illustrated on this page. Read the upper part of the opposite page again carefully.

The operation of the Hummer Pipeless is the same in principle as the Volcano Pipeless, but differs in the details. Cold air is taken in through the opening on the right side of the base of the furnace, and heated. It then rises through the big register to the room above, and continues to rise wherever there is an outlet, going through doors and other openings into other rooms. As it cools it falls. Unless some method is adopted of making use of this return air and providing continuous, positive circulation of the air in the house, the best results cannot be obtained. When no such provision is made the furnace merely takes in the basement air, and after heating passes it to the rooms above, with not very satisfactory results.

What should be done in every case with this furnace is to build a return air shaft down from the first floor, as shown in the illustration at the right. This shaft can be built of any kind of close fitting boards. To provide for it we supply the square shoe on the opening in the base of the furnace, and we also include an extra wooden grating to be placed in the floor at the top of the shaft. We do not include the boards for the shaft.



Hummer Pipeless Furnaces For Soft Coal or Wood

The Hummer Pipeless Furnace shown at the left has a cast iron fire pot and steel radiator. Feed door is especially large to take big chunks of wood or coal. Combustion chamber is likewise large and roomy. Will burn cobs, slack, stumps, knots, nearly everything used for fuel. Fire pot in two sections, heavily corrugated. Casing has asbestos felt lining and bright tin reflector. Radiator of heavy cold rolled steel plate, riveted like a boiler, with cast iron top and cast lower ring. Deep ash pit and triangular revolving door grates.

The Hummer Pipeless has given excellent results under many conditions. However, the construction is not as good as that of our Volcano Pipeless shown on the opposite page, and to get the best results it is necessary to build the return air shaft above mentioned. This is not required with our Volcano Pipeless.

Prices are for furnace complete with casing, black japanned register, oak return air grating, shaker handle, poker, dampers, damper pulleys and cement. Shipped direct from foundry in SOUTHERN MICHIGAN. Be sure to give

height from your basement floor to the floor level of your first floor; also information required in section headed "Information We Require With All Orders for Pipeless Furnaces" at the right.

	42B2250%	42B2251%	42B2252%
Diameter of fire pot, inches.....	20	22	24
Diameter of casing, inches.....	30	40	44
Size of feed door, inches.....	10x12	11x12	11x13
Depth of fire pot, inches.....	10 1/2	10 1/2	11
Diameter of smoke pipe, inches.....	8	8	8
Size of register, inches.....	16x20	18x24	20x24
Heating capacity, cubic feet.....	6,000	10,000	15,000
Approximate shipping weight, pounds.....	625	800	1,000
Price, complete.....	\$54.75	\$62.70	\$71.50

PRICES SUBJECT TO MARKET CHANGES.

Information We Require With All Orders for Pipeless Furnaces

For your own protection, be sure to give us the following information when you send in your order: Send us rough drawings of your first and second floors, giving dimensions of the rooms and being sure to mark all doors and windows. Indicate where you intend to place the furnace in the basement and give height from basement floor to level of first floor. This information will enable us to give you valuable advice in case we find that a slightly different position would insure better heating.

Ever Ready Water Supply Outfits



Fresh, Pure Running Water at the Turn of a Faucet

STOP carrying water for the house, for the stock, for the garden. An Ever Ready Water Supply Outfit will force the water through pipes anywhere you want it. The water in the pressure tank, located in your basement or buried in the ground, will not freeze in Winter, or grow warm and stagnant in Summer. The pressure tank furnishes a reliable fire protection, too, for it will lift the water as high as 100 feet if desired.

Easy to Install Ever Ready Tank Outfits

Practically all of the hundreds of outfits we have sold have been put in by our customers themselves. We send full and plain directions for installing and operating. Satisfaction guaranteed or money back without question.

How Much Water Do You Use?

Of course, the size tank to order depends on how much water you use daily and how often it will be convenient for you to pump. The size generally ordered for HAND pumping is a 220-gallon tank outfit like our No. 42B2044½ on the opposite page. The average family uses from 75 to 150 gallons of water per day in the house alone.

If your basement, or wherever you wish to place the tank, is not high enough for a vertical tank, we have similar horizontal tanks on which we will gladly quote prices.

Our outfits come complete with the fittings shown in the pictures on the opposite page. But you will, of course, need pipe running from the tank to your well or other water supply, and to your house fixtures. This must be ordered extra.

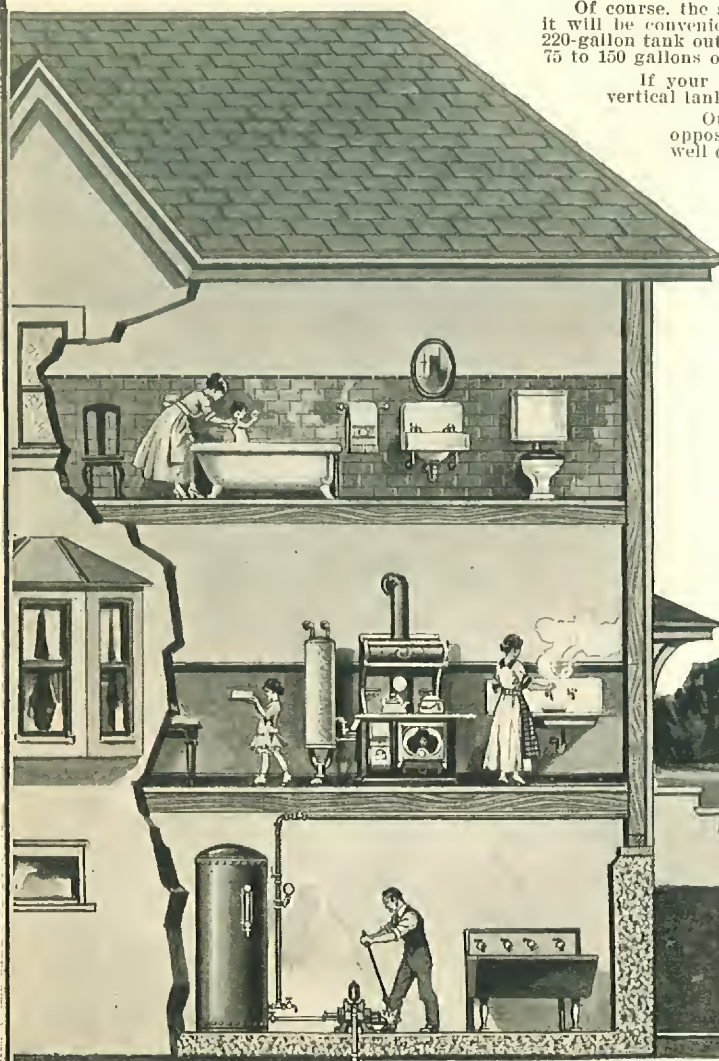
How to Figure the Pipe Needed

Our SHALLOW Well outfits are for places where the water in the well, spring or stream is not more than 22 feet below the level where you place the pump. For these outfits you will merely need enough 1¼-inch pipe to reach from pump to within 1 foot of bottom of well; enough 1-inch pipe to run from pump to tank, if these are not set close together, and enough ¾-inch pipe to run from tank to the house fixtures. Also order a 1½-inch foot valve for end of pipe in well. Pipe and pipe fittings will be found in our big General Catalog. If you haven't a copy, send for our Catalog of Modern Plumbing.

If the water in your well is more than 22 feet below the pump, you need a DEEP Well outfit such as No. 42B2626½ to No. 42B2632½ on the opposite page. The pump is then placed directly over the well, and the cylinder is lowered into the water. For an outfit of this kind order enough 1¼-inch pipe to reach from pump at least 10 feet below low water level if water is deep, or within 1 foot of bottom if water is shallow. Also order enough pump rod (which we supply threaded and coupled at 6 cents a foot) to reach from pump to cylinder. If you place your tank any distance from pump, order pipe to reach from pump to tank (1-inch pipe for all hand outfits; 1¼-inch for power driven outfits). Finally order ¾-inch pipe from tank to house fixtures, etc.

Free Advice.

If in doubt on any point write to us. Our experts will gladly give you any information you wish without charge.



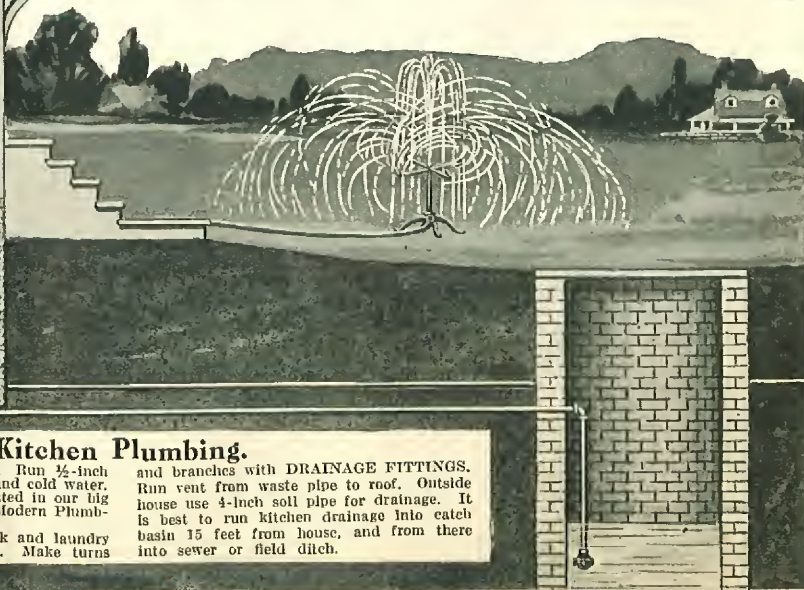
How to Figure Pipe for Kitchen Plumbing.

For SUPPLY pipe run ¾-inch pipe from pressure tank to sink, and to range boiler and return for hot water. Heat water by water front in kitchen range, by coils in furnace, or by Hercules Heater (see our big General Catalog or our Catalog of Modern Plumbing). Run ¾-inch pipe from boiler

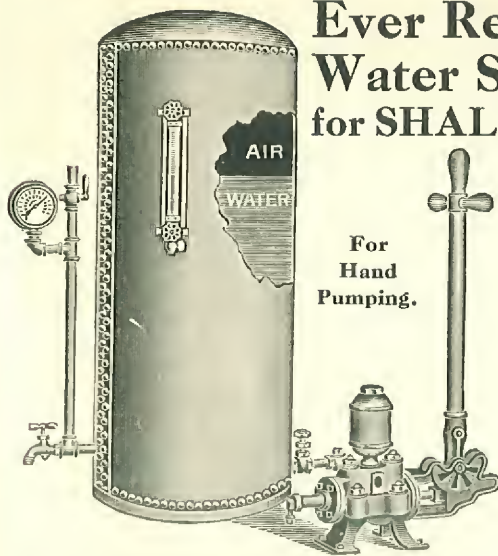
to stove or heater and return. Run ½-inch pipe to laundry tubs for hot and cold water. Use iron pipe and fittings. Listed in our big General Catalog and in our Modern Plumbing Catalog.

For WASTE pipe from sink and laundry tubs use 1½-inch iron pipe. Make turns

and branches with DRAINAGE FITTINGS. Run vent from waste pipe to roof. Outside house use 4-inch soil pipe for drainage. It is best to run kitchen drainage into catch basin 15 feet from house, and from there into sewer or field ditch.



Furnish Running Water on Your Place



Ever Ready Water Supply Outfits for SHALLOW Wells or Cisterns

For
Hand
Pumping.

After you have selected the outfit be sure to read on opposite page how to figure the pipe needed.

No. 42B2043½ Outfit. One 24-inch by 6-foot vertical black steel pneumatic tank. Total capacity, 140 gallons; working capacity, 100 gallons; one special horizontal double acting force pump with 3-inch brass lined cylinder and hydropneumatic cylinder attached, one 1-inch gate valve, one 1-inch check valve, one water gauge complete, one pressure gauge, one ¾-inch stop and waste cock, one ½-inch hose bibb, together with pipe and fittings cut and threaded, as shown in illustration. Shipping weight, about 470 pounds.

Price, complete.....\$69.35
Price, complete, with tank galvanized inside and out.....88.70

No. 42B2044½ Same as above, using 30-inch by 6-foot vertical black steel pneumatic tank. Total capacity, 220 gallons; working capacity, 150 gallons. Shipping weight, about 660 pounds.

Price, complete.....\$79.00
Price, complete, with tank galvanized inside and out.....105.25

No. 42B2046½ Same as above, using 36-inch by 6-foot vertical black steel pneumatic tank. Total capacity, 315 gallons; working capacity, 215 gallons. Shipping weight, about 860 pounds.

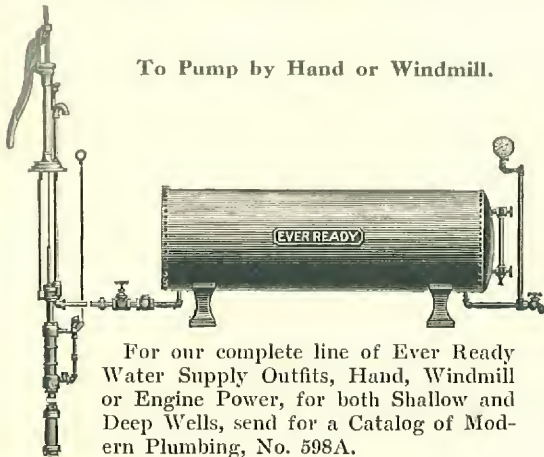
Price, complete.....\$97.75
Price, complete, with tank galvanized inside and out.....132.50

Tank shipped from factory in CENTRAL ILLINOIS; pump and trimmings from our CHICAGO store.

Let US Figure for You.

If you would like US to figure, send us rough drawings of your basement, first and second and any other floors, with dimensions of rooms and height of ceilings. Give height from basement floor to roof and distance from water supply to house. Give us the catalog numbers of the sink, closet, etc., you like, and show just where you want them placed. Send copy of your plumbing law, if there is one. Our experts will then give you an itemized estimate of the cost of fitting your place as you want it fitted.

Ever Ready Water Supply Outfits for DEEP Wells



To Pump by Hand or Windmill.

For our complete line of Ever Ready Water Supply Outfits, Hand, Windmill or Engine Power, for both Shallow and Deep Wells, send for a Catalog of Modern Plumbing, No. 598A.

Any of these outfits furnished with vertical tank if desired. After you have picked out the size you want, be sure to read on opposite page how to figure the pipe needed.

No. 42B2626½ Outfit. One 24-inch by 8-foot horizontal black steel tank. Total capacity, 190 gallons; working capacity, 130 gallons; one special deep well double acting force pump, one 2½x16-inch brass body water cylinder, one 3-inch hydropneumatic cylinder, one water gauge complete, one pressure gauge, one 1-inch check valve, one 1-inch gate valve, one ¾-inch stop and waste cock, one ½-inch hose bibb, two tank supports fitted to curvature of tank, together with pipe and fittings, as shown in the illustration. Shipping weight, about 650 pounds.

Price, complete.....\$98.60
Price, complete, with tank galvanized inside and out.....123.50

No. 42B2630½ Same as above, using 30-inch by 8-foot horizontal black steel tank. Total capacity, 295 gallons; working capacity, 200 gallons. Shipping weight, about 915 pounds. Price, complete.....\$106.90

Price, complete, with tank galvanized inside and out.....138.00

No. 42B2632½ Same as above, using 36-inch by 8-foot horizontal black steel tank. Total capacity, 420 gallons; working capacity, 280 gallons. Shipping weight, about 1,160 pounds. Price, complete.....\$131.20

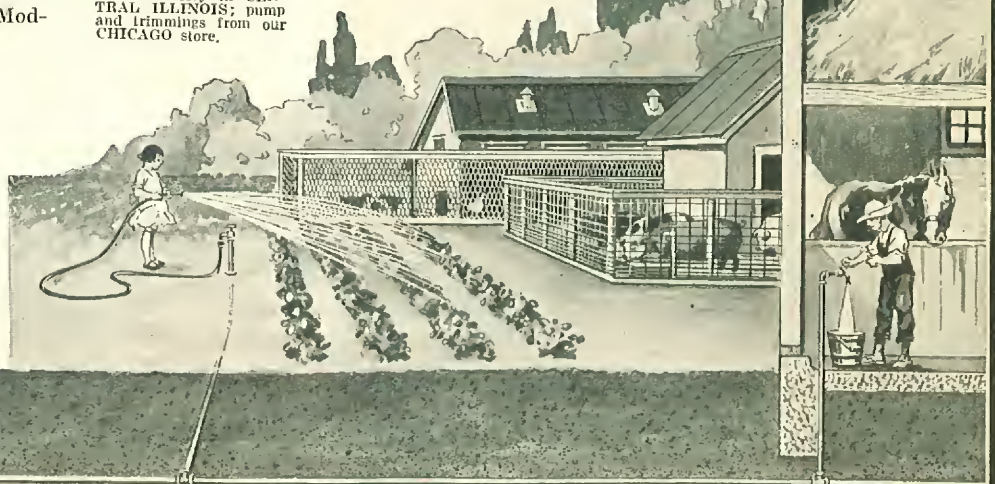
Price, complete, with tank galvanized inside and out.....174.40

With 2½x18-inch brass body cylinder with ball valves. \$2.25 extra.

The tanks are shipped from factory in CENTRAL ILLINOIS; pump and trimmings from our CHICAGO store.

You Can Be Your Own Plumber.

In MODERN plumbing IRON pipe is used, which you simply screw together. No wiped lead or soldered joints. All the sinks, water closets, etc., in our big General Catalog and in our Modern Plumbing Catalog can be furnished fitted for IRON pipe. With the full directions we send it is easy to be your own plumber.



How to Figure Pipe for Bathroom Plumbing.

For SUPPLY pipe, both hot and cold, to bathtub use ½-inch iron pipe. Use ¾-inch pipe to wash bowl and to closet. All pipe, pipe fittings and tools here mentioned will be found listed in our big General Catalog. If you haven't a General Catalog, send for our Catalog of Modern Plumbing.

For CLOSET WASTE use 4-inch soil pipe and fittings. Run pipe up to roof for vent. Connect closet to upright

stack with tee branch and closet bend. Into the bend connect the 1½-inch iron pipe you should use for waste from bathtub and wash bowl. Use DRAINAGE FITTINGS (elbows, tees, etc.) for the 1½-inch pipe.

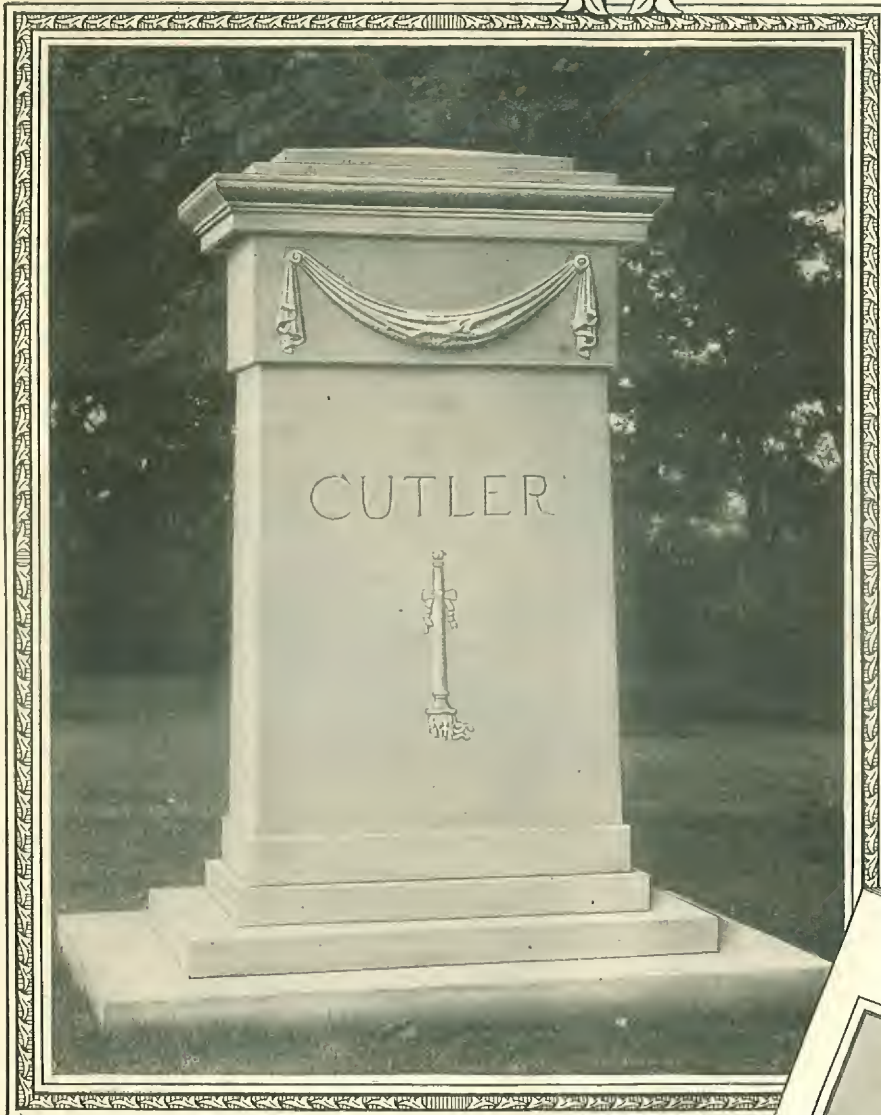
When there is no sewer or stream to take the closet waste, build a septic or "seum" tank. On request we will send full directions for building this tank.

Tools for Handling Pipe.

For wrought pipe we suggest pipe vise, one No. 1 and one No. 2 pipe cutter, stock and dies and one of two wrenches.

We suggest, for calking soil pipe, melting pot, 3-inch ladle, yarning iron, calking chisel and blast furnace.

A DIGNIFIED SYMBOL OF HONOR AND RESPECT

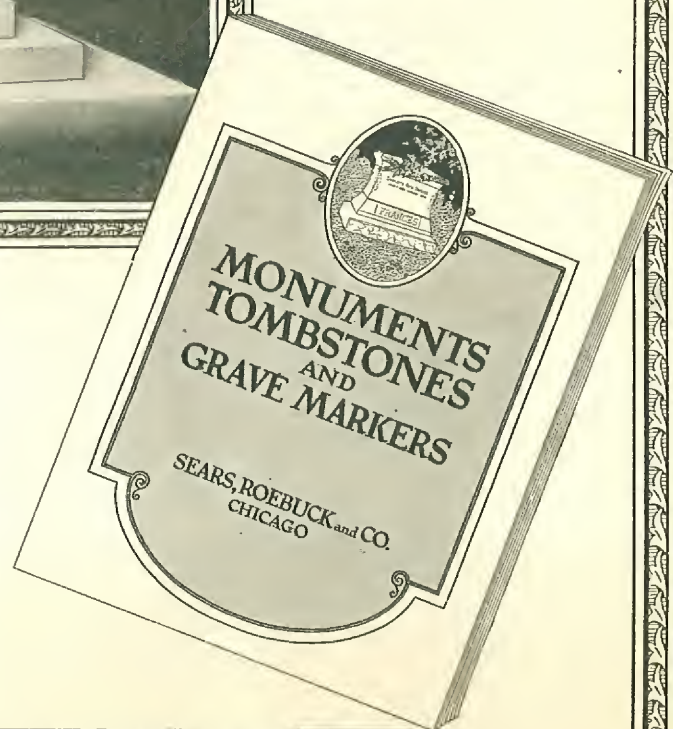


AT SOME time there falls to most of us the duty of providing a fitting tribute to the memory of those who have passed on, a token of our own loving esteem, and at the same time a lasting monument that will fittingly preserve their memory to coming generations.

We respectfully offer our assistance in performing this worthy task.

WE OFFER for your consideration a complete selection of marble and granite monuments, tombstones and grave markers of very high quality. At the same time our prices are far lower than you would be asked elsewhere.

Write for our Catalog of Monuments and Tombstones. Ask for Catalog No. 572B.



Running Water in Your Home

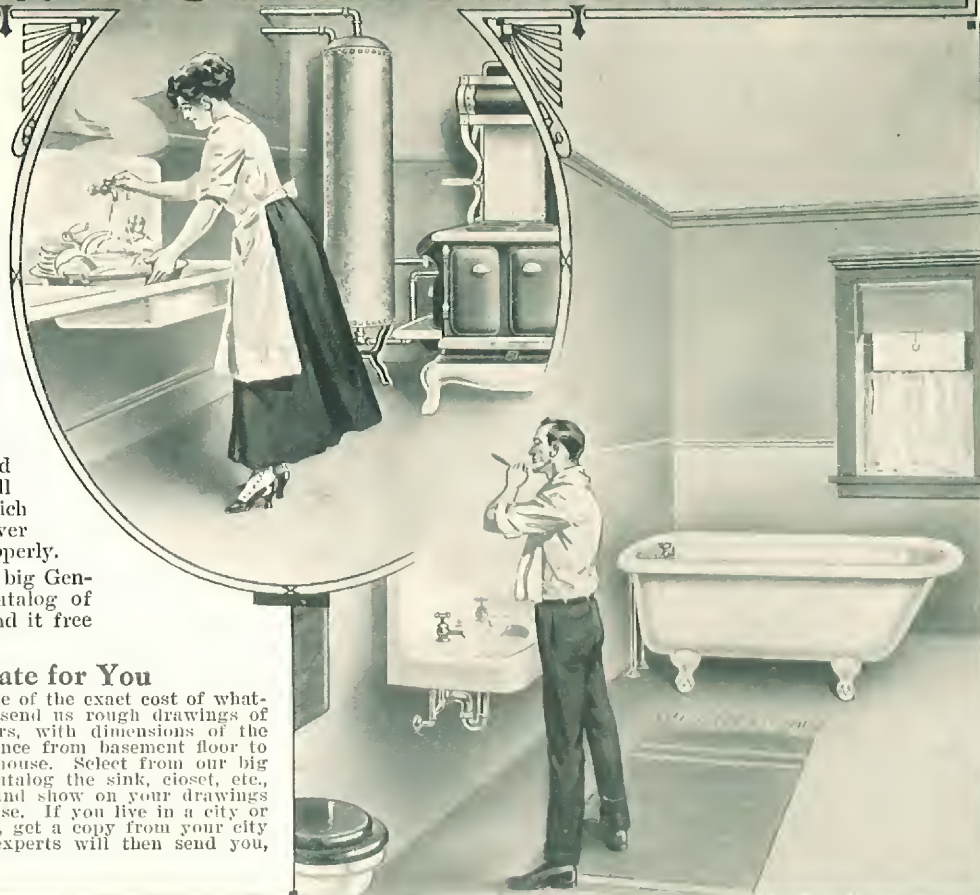
It Costs Very Little

LET us tell you how to have RUNNING WATER, with all its advantages, in your home and other buildings. In our big General Catalog, or in our Catalog of Modern Plumbing (either sent free on request), you will find a splendid line of plumbing fixtures, pipe and fittings, pumps, water supply systems, tools, etc. With a force pump or a ram you can lift water from your well or other water supply to a tank in the attic or in the barn. The height of the tank gives the pressure that is necessary to cause the water to flow from the faucets. Our Ever Ready Water Supply Outfits (see page 42) give even greater pressure and need not be placed above the ground. When desired, we will send full directions for installing, which will enable anyone, even though he has never done any plumbing before, to put it in properly.

If you haven't a copy of our big General Catalog, send for our Catalog of Modern Plumbing. We will send it free of charge. Write for it today.

We Will Gladly Estimate for You

We shall be glad to give you an estimate of the exact cost of whatever plumbing you wish to put in. Just send us rough drawings of your basement, first floor and other floors, with dimensions of the rooms and heights of ceilings. Give distance from basement floor to roof, and distance from water supply to house. Select from our big General Catalog or from our Plumbing Catalog the sink, closet, etc., you like, giving us the catalog numbers, and show on your drawings where you want to place these in your house. If you live in a city or community that has a plumbing ordinance, get a copy from your city clerk and send it along. Our plumbing experts will then send you, free of charge, an itemized estimate.



Complete Plumbing Outfits for Country Homes

Hot and cold water at sink and bathtub. Simple to install and to use. Quickly put in. No water system necessary. By simply pumping and turning the shut-off cock according to directions we furnish, you can obtain hot, warm, or cold water at either sink or bathtub. If you order an outfit with a kerosene heater this will keep the range boiler hot for twenty-four hours on 1 gallon of kerosene. Complete directions for installing and operating furnished with outfit.

No. 42B9225½ Perfection Plumbing Outfit for connecting to both cook stove and kerosene heater. Consists of kitchen sink, porcelain enameled inside, size 18x30 inches, with brackets, pump board and trap; cistern force pump with brass body, three-way cock and faucet spout; 5-foot steel bathtub; 30-gallon galvanized range boiler with fittings and stand; kerosene water heater with cast jacket and four copper coils; 25 feet of suction pipe to run from pump to cistern or well; 25 feet of waste pipe to run from sink and bathtub to drain; water piping for placing tub and range boiler 10 feet from sink and fittings for connecting pump to range boiler and range boiler to kerosene water heater and cook stove coil, as illustrated. All pipe and fittings galvanized inside and out. Shipping weight of outfit, except tub, which is shipped separately, about 550 pounds. **\$70.75**

Price, complete as described. **\$70.75**
Before ordering read note at bottom of this page.
No. 42B9226½ Perfection Plumbing Outfit, as described above, without bathtub and supply and waste piping for bathtub. Shipping weight, about 425 pounds. Price. **\$60.75**

Before ordering read note at bottom of this page.
No. 42B9227½ Perfection Plumbing Outfit. Same as No. 42B9225½ without bathtub, bathtub waste and supply piping, kerosene water heater and piping from heater to range boiler. This outfit is for connection with cook stove only. Shpg. wt., about 350 lbs. **\$43.25**

Before ordering read note below.

Read This Before Ordering.

Complete instructions for installing are sent with each Perfection Plumbing Outfit. Bathtubs are shipped from factory in DETROIT, MICH. (shipping weight, about 90 pounds), all other material from our CHICAGO store.

If pump will be more than 25 feet from cistern, allow 17½ cents extra for each additional foot.

If sink or bathtub will be more than 25 feet from drain, allow 21 cents extra for each additional foot.

If bathtub will be more than 10 feet from sink, allow 30 cents extra for each additional foot.

If range boiler will be more than 10 feet from sink or 2 feet from cook stove coil, allow 17½ cents extra for each additional foot.

Prices of outfits do not include cook stove coils or water fronts. You can get these at small cost from the firm that made the stove.

If you purchased your range from us you will find coils or water fronts for it listed in our big General Catalog.

Enclose a rough sketch of your building with your order, showing where the sink will be placed, the distance from the sink to the range boiler, from sink to cistern, from sink to bathtub (if outfit includes bathtub), and from sink to drain. We will then carefully go over your order to make sure that it conforms to your requirements.

Perfection Tool Set for Installing Above Outfits.

No. 42B9230½ Set consists of No. 0 open hinge pipe vise for holding the pipe; No. 2 Saunders pipe cutter for cutting it; one stock and dies for threading pipe from ¾ to 1½ inches, one 18-inch Stillson wrench for screwing pipe. Shipping weight of set, about 35 pounds. Price. **\$11.45**

